Hawaiian
Historical Society
1577

Royal Society of New Zealand

TRANSACTIONS

AND

PROCEEDINGS

of the Royal Society of New Zealand

OF THE

NEW ZEALAND INSTITUTE.

INDEX.

VOLS. I. TO XVII.

EDITED AND PUBLISHED UNDER THE AUTHORITY OF THE BOARD OF GOVERNORS OF THE INSTITUTE.

BY

JAMES HECTOR, C.M.G., M.D., F.R.S.

WELLINGTON:
GEORGE DIDSBURY, GOVERNMENT PRINTER.
TRUBNER & CO., 60, PATERNOSTER ROW LONDON.

1886.

Pacific Islands
Reference
Q93
.N6
Index
v.1-17

506
N48 I
Index
v.1-17

1877

PREFACE.

The following work includes a General Index to the first series of the Transactions and Proceedings of the New Zealand Institute, royal octavo, Vols. I. to XVII. The second series, commencing with Vol. XVIII., now in the press, will be published in demy octavo, as being more convenient and economical; the Board of Governors having decided that memoirs requiring special illustration are in future to be reserved for a publication in quarto.

As a convenient companion to this work, a classified index is also given of all papers bearing on scientific matters which have been published in the Appendices to the New Zealand Parliamentary Papers since 1861.

In preparing the original edition of this publication (1877) I received assistance from Mr. Leonard Stowe; and in compiling the present edition the valuable services of Mr. T. W. Kirk and Mr. W. E. Vaux have to be acknowledged.

Wellington, March, 1886. JAMES HECTOR.

72966

NEW ZEALAND INSTITUTE

TRANSACTIONS AND PROCEEDINGS.

VOLUMES I. TO XVII.

INDEX OF SUBJECTS.

SUBDIVISIONS.

ASTRONOMY, METEOROLOGY, AND PHYSICS.
BOTANY, HORTICULTURE, FORESTRY, ETC.
CHEMISTRY.
COLONIAL INDUSTRIES.
ETHNOLOGICAL.
GEOGRAPHY.
GEOLOGY AND PALÆONTOLOGY.
MINERALOGY AND MINING.
MISCELLANEOUS.
PROCEEDINGS.
ZOOLOGY.

LIST OF ABBREVIATIONS.

a. refers to the Appendix at the end of the Vol. referred to.
n.e. „ New Edition of Vol. I.
p. „ Proceedings, Vol. III.
n.s. before the number of Vol. means new species.

Astronomy, Meteorology, Physics—

Aerolite at Ururnui, XVI., 551.
Aerolites, I., Essay on Geology, 26; *n.e.*, I., 328.
Anemometry, IX., 293.
Apparatus for measuring Distances and Position of Double Stars, XI., 141.
Astronomy and Celestial Physics, V., *a.*, 50.
Atmosphere, Vertical Oscillations in the, III., 306.

Astronomy, Meteorology, Physics—*continued.*
Atmospheric Pressure, V., 106.
Atmospheric Pressure of New Zealand and Great Britain compared, XI., 212.
Auroral Display, Effect of, on Electric Telegraph, IV., 367.
" " on Ships' Compasses, IV., 367.
Biela's Comet, VII., 148.
Birth of Nebulæ, XII., 197.
Celestial Physics, V., *a.*, 50.
Chromatics, XIII., 438.
Climate of New Zealand, IX.; App., XXI.
" (see *Appendix to each vol.*).
Comet, Great, of 1882, XV., 526.
Comets, Constitution of, XV., 477.
Comet-seeking, XV., 524.
Compass, Ships', Irregularity of, VI., 10.
Currents, Ocean, III., 322.
Declination of Magnetic Needle, VI., 3.
Double Stars, Origin of, XIII., 160.
Earth, New Zealand, Bad Conductor of Electricity, II., 226.
Earthquake Disturbances in the Ocean, XVI., 553.
" Phenomena, XV., 533.
" Waves, I., 36; *n.e.*, I., 449; I., 195; *n.e.*, I., 146; II., 222.
Earthquakes, I., 43; *n.e.*, I., 436; I., 42; *n.e.*, I., 446; I., 93; *n.e.*, I., 35; I., 196; *n.e.*, I., 147; I., Essay, Geology, 23; *n.e.*, I., 325; *n.e.*, I., 436; II., 433; III., 355; IV., 437; V., *a.*, 21; VI., *a.*, 21; VII., *a.*, 23; VIII., *a.*, 23; X., *a.*, 23; XI., *a.*, 23; XII., *a.*, 47; XIV., *a.*, 23; XV., *a.*, 23; XVI., *a.*, 45; XVII., *a.*, 47.
Earth's Rotation affected by Volcanic Action, VIII., 352.
Earth Tremors and Earthquakes, XVI., 549.
Eccentricity of Planetary Orbits, Cause of, XIII., 149.
Eclipse, 1876, IX., 640.
Eclipses, IV., 389.
Electric Telegraph affected by Aurora, IV., 367.
Electricity, Conduction of, III., *p.*, 33, 324.
Electro-Magnetic Seismograph, IV., 330.
Fiji, Observations in, VII., *a.*, 30.
Genesis of Worlds and Systems, XII., 187.
Gravitation, Cause of, XIII., 122.
Great Flood of 1868, XIV., 76; Discussion, 535.
Gyrations of the Wind, III., *p.* 36, 303
Heat, Latent, in Atmosphere, II., 413.
Hot Lakes, North Island, IV., 6.
Hot Springs, I., 36; *n.e.*, I., 441; I., 62; *n.e.*, I., 469; I., 71; *n.e.*, I., 477; I., 162; *n.e.*, I., 106.
" Hanmer Plain, III., 293.
" Helensville, Kaipara, IV., 396.
" Te Puia, Waikato, II., 169.
" Wataroa River, Westland, VI., 380.
Hot Winds, Canterbury, VII., 105, 470; XVI., 562.
" Hawke's Bay, VII., 107.
Impact, Probability of, XIII., 166.

Astronomy, Meteorology, Physics—*continued.*
Influence of Atmospheric Changes on Hot Springs, Rotorua District, IX., 27.
Influence of Earth's Rotation on Rivers, X., 92.
Latent Heat in Aqueous Vapour of the Atmosphere, II., 413.
Life Germs derived from Meteors, IV., 417.
Longitude, III., *p.*, 82.
" of Wellington Observatory, IX., 217.
" Wellington, VIII., 441.
Lunar Influences and Popular Fallacies, XVI., 571.
Magnetic Dip, XI., 558.
" Needle, Declination of the, VI., 3.
" " Movement of, XII., 425.
Mean Time, I., 48; *n.e.*, I., 451.
Meteors, I., 40; *n.e.*, I., 443; II., 402; III., *p.* 24, *p.* 76; IV. 355.
" Germ of Life derived from, IV., 417.
Meteorological Stations, XIII., 448.
" Statistics (see *Appendix to each vol.*).
Mirage, V., 457.
Moon, and the Weather, III., *p.*, 62.
" Occultation of Stars by the, VI., 57.
Mortality, Effects of Temperature upon Infant, V., *a.*, 35.
Motions of Earth, Method of Illustrating, XIII., 164.
New Zealand Climate (see *Appendix to each vol.*).
" Mean Time, I., 48; *n.e.*, I. 451.
Observatory: Its Practical Use, V., 467.
" Fiji, VII., *a.*, 30.
" Wellington, Longitude of, VII., 502.
Ocean Currents, III., 322.
Oscillation in the Atmosphere, III., 306.
Oscillations of Barograph and Celestial Glows, XVI., 555.
Parhelion, III., *p.*, 95.
Partial Impact, XI., 125; XII., 175, 181; XIII., 448.
" Criticisms on, XIII., 449.
Periodic Vertical Oscillations in Sun's Atmosphere, XIII., 91.
Pressure of the Atmosphere, V., 106.
Rainfall (see *Climate Tables, Appendix to each vol.*).
" Hokitika, III., 299.
Rain-gauge, IV., 392.
Reciprocity of Seasons, X., 523.
Saltness of the Ocean, III., 322.
Science of Weather, XI., 556.
Seismograph, Electro-Magnetic, IV., 330.
Solar Radiation, VI., 391.
Solar and Stellar Heat, Permanency of, XIII., 97.
" Heat, XIV., 541.
" System, Origin of, XIII., 154.
Southern Stars, &c., XII., 165.
Statistics, Meteorological (see *Appendix to each vol.*).
Stars, Occultation of, by the Moon, VI., 57.
Sunset Glows, XVI., 557.
Telescope, a new, V., 119.

Astronomy, Meteorology, Physics—*continued.*
Telescope, Eye-piece for Direct Solar Vision, VIII., 172.
" Reflecting, V., 125.
Temperature of Breath; Remarks on Dr. Dudgeon's Experiments, XIII., 437.
" (see *Climate Tables, Appendix to each vol.*).
" of the Ocean, III., 322.
Temporary and Variable Stars, XI., 118.
Terrestrial Radiation, VI., 391.
Thermometer, VII., 152.
Thermal Springs (see Hot Springs).
Tidal Waves, I., 42; *n.e.*, I., 449; I., 65; *n.e.*, I., 472; I., 93; *n.e.*, I., 35; I., 101; *n.e.*, I., 44; I., 195; *n.e.*, I., 146; X., 520, 522; XVI., 552.
Transit of Venus, V., 466.
Triple Meteor, XV., 524.
Volcanic Action, Effect of, on the Earth's Rotation, VIII., 352.
Waterspout in Cook Strait, XV., 525.
Weather and the Moon, III., *p.*, 62.
" Forecast, XII., 40.
" Health, and Forests in Mauritius, XV., 524.
" Notes on the (see *Climate Tables, Appendix to each vol.*).
" Reports, Telegraphic, XIV., 545.
Wind, Force of the (see *Climate Tables, Appendix to each vol.*).
" Gyration of the, III., *p.*, 36, 303.
" in Southland, XVI., 571.
Zodiacal Light, V., *a.*, 43, 47; VII., 150.

Botany, Horticulture, Forestry, &c.—
Acclimatization of Trees, &c., I., Essay (Ludlam); *n.e.*, I., 285.
Acianthus, VII., 349.
Additions to New Zealand Flora, X., *a.*, 28; XIII., 437; XIV., 382, 299; XV., 298, 339; XVI., 409.
Algæ, IV., 237; VII., 369, 404.
" Chatham Island, III., 76, 213; VI., 208.
" Fresh Water, XIV., 287; XV., 302.
Alpine Flora of New Zealand, XIV., 342.
" Plants of Otago, XIII., 434.
Ammophila arundinacea, V., 111.
Amphibromus, XVI., 374.
Apple-tree Blight, IV., 429.
Aralia lyallii, XVII., 293.
Arboriculture Committee, III., *p.*, 53.
Arid Island, I., 165; *n.e.*, I., 108.
Asteliads, IV., 241, 394.
Atropis in New Zealand, XIV., 378.
Auckland North Districts, I., 140; *n.e.*, I., 84; II., 239, 242; III., *p.*, 86, 166, 173.
Australian Bark for Tanning, XI., 570.
Azolla rubra, X., 522.
Beeches, New Zealand, XVII., 298.

Botany, Horticulture, Forestry, &c.—*continued.*
Beet for Sugar, XII., 431.
Bird-killing tree, XVI., 364.
Black Maire, X., 522.
Bluff Hill, Botany of, X., 400.
Bœomyces Neteromorphus, XIII., 368.
Botany Notes, XVI., 367; XVI., 397.
" of Kawau Island, IX., 503.
" of New Zealand, XVI., 325.
" of Pirongia Mountains, XII., 317.
" of Te Aroha Mountains, XVII., 275.
" of Thames Goldfields, XVI., 385.
" of Waiheke, Rangitoto, &c., XI., 444.
Botrychium lunaria, XVI., 363; XVI., 366.
Brachyglottis, Poison in (see *Chemistry*).
Calceolaria repens, XI., 466.
Calostrophus lepyrodia, VI., 384, 389.
Campbell Island and its Flora, XVI., 398.
" Plants from, XIII., 437; XIV., 387.
Carex, n.s., XIII., 332; XV., 358.
" Revision of, XVI., 414.
Carmichælia, XVI., 378; n.s., XVII., 272.
Cassinea leptophylla; VI., 248.
Catalogue of Flowering Plants and Ferns, II., 95; III., 153.
Celmisia, n.s., X., 427.
" *sessiliflora*, XV., 359.
Charring Timber, IX., 183.
Chatham Island Plants, &c., III., *p.*, 76, 213; V., 309, 320; VI., 208; VII., 333.
Cheilanthes, VI., 247.
Cladophora, XII., 397.
Clover Dodder, V., 450.
Composite Plant, n.s., XV., 259.
Coprosma, XI., 426; XVI., 565.
Corallos partium, XIII., 333.
Cordyline, VI., 244.
Coriaria ruscifolia, III., 237.
Cork grown at Auckland, XV., 267.
" Hutt, XV., 528
Cryptogamia, IV., 231.
Cyathea dealbata, V., 347.
Cyrtostilis, VII., 349, 404.
Dacrydium, X., 383.
Desmidieæ of New Zealand, XIII., 297; XV., 237.
Diatomaceous Deposits, XV., 340.
Diatoms, Exhibition of, XIII., 455.
Diatoms, n.s., XIII., 448; XIV., 357.
Dicksonia antarctica, V., 345.
" *lanata*, V., 345.
Distribution of Plants, IV., 256.
Donatia novæ-zealandiæ, XIII., 289.

Botany, Horticulture, Foresry, &c.—*continued.*
Durable Timber, Means of selecting, X., 190.
Economic Properties of Native Grasses, IX., 494.
Ehrharta, XII., 356.
Elymus arenarius, V., 111.
Epacris, II., 107.
Epacris microphylla in New Zealand, XIV., 364.
Erigeron, n.s., XVII., 287.
Eucalyptus in Karaka District, XVI., 383.
Fabronia, n.s., VIII., 312.
Fagus, n.s., XVII., 297.
Ferns, Catalogue of, III., 153. (Also end of Vol. III.)
„ Large Numbers of, in Small Area, XV., 311.
„ Natural Arrangement of, XIII., 359.
„ New, XIII., 376; XV., 304.
„ Nomenclature of, III., 213.
„ Potts, X., 358; XI., 429.
„ Rare, VII., 540.
„ Stewart Island, XVII., 228.
Fertilization of certain New Zealand Plants, XVII., 455.
Fir-trees, VII., 192.
Flax, Abnormal Growth, XIV., 374.
„ Fibre, II., 108, 111, 116, 415; III., *p.* 27, *p.* 35; IV. 370; V., 357.
Flora, Auckland, IV., 228.
„ Chathams, V., 212. (See also Chatham Islands *supra.*)
„ Comparison of Nelson and Canterbury, I., Part iii., 7; *n.e.*, I., 174.
„ Lake District, North Island, V., 322, 428.
„ New Zealand, I., 39; *n.e.*, I., 443; IV., 224; XVII., 459.
„ of Canterbury, XII., 325.
„ of New Zealand and Australia, XI., 539.
Flowering Plants, Fertilization of, XIII., 241.
Forest Culture, III., 53; VII., 181; XVI., 576.
„ Planting and Conservation, XII., 428.
„ Question, XII., 3.
Forestry, Importance of, XIV., 569; XV., 461.
„ State, IX., 187, *a.*, 27.
Forests, Influence of, on Climate and Rainfall, XII., 24.
„ Weather and Health in Mauritius, XV., 524.
Fruit-trees, Animals destructive to, IX., 631.
Fungi, List of, XVII., 265.
Fungus, Export of, X., 454.
„ Penetrating Nostoc, X., 559.
Geographical, I., *p.*, 44; *n.e.*, I., 157; I., Essay (Hector), Part iii.; *n.e.*, I., 174.
„ Nelson and Marlborough, I., Part iii., 7; *n.e.*, I., 161.
„ North Island, I., 56; *n.e.*, I., 463; I., Essay; *n.e.*, I., 233.
Glossostigma, X., 353.
Gnaphalium fasciculatum, IX., 529.

Botany, Horticulture, Forestry, &c.—*continued.*
Grasses, X., 345.
„ and Herbage Plants, IX., 531. Discussion on, IX., 617; XI., 403. Remarks on, XI., 528; XII., 382.
„ and Pasturage Plants, II., 102.
„ Indigenous, Auckland, IV., 299.
„ „ Canterbury, IV., 301.
„ Introduced in Auckland, IV., 295.
„ Native and Introduced, IV., 292.
„ „ Information required, III., *p.*, 52.
„ New Zealand, II., 103.
„ Otago, I., Part iii., 123; *n.e.*, I., 182.
„ Report of Committee upon, III., *p.* 51, *p.* 97.
Great Barrier, I., 144, 149; *n.e.*, I., 88.
Growth of Trees on Clay Soils, XII., 447.
„ Scoria Soils, XII., 357.
Gymnostomum, n.s., VII., 354.
Hedge-plants, XV., 524.
Hedges and Hedge-plants, IX., 203.
Hemiphues, XII., 355.
Hormosira villardieri, Structure of, XIII., 318.
Hybridization, I., 39, 89; *n.e.*, I., 31.
Hymenophyllum armstrongii, X., 532.
„ n.s., VIII., 330.
„ n.s., X., 394; XI., 457.
„ *villosum*, X., 395.
Indigenous Vegetable Products, XVI., 569.
Introduced Trees and Plants, XIII., 427.
Invercargill, Plants of, V., 360.
Isoëtes, II., 107; n.s., VII., 377.
Juncus glaucus, X., 393.
„ *lamprocarpus*, VII., 378.
„ *tennis*, XI., 433.
Kauri, Mottled, VII., 376.
Kororarika, Naturalized Plants, I., 157; *n.e.*, 100.
Kyllinga, XI., 434.
Lagenophora emphysopus, XII., 397.
Lake District, North Island, V., 322, 428.
Lepidia, Revision of, XIII., 437; XIV., 379.
Leuconora, XIV., 540.
Lichenographia, XII., 367; XV., 346; XVI., 400.
Lichens, New Zealand, VI., 235; VII., 356, 367; VIII., 313.
Limes, Citric Acid from (see *Chemistry*).
Lindsaya viridis, X., 396.
Liparophyllum gunnii, XII., 354.
Littoral Plants (Waikato), III., 46, 147.
Lomaria, IX., 491.
Loranthaceæ, Parasitism in, VIII., 329.
Loranthus decussatus, n.s., III., 161.
„ n.s., XIII., 296.
„ *fieldii*, XVII., 288.
Lycopodium, n.s., XI., 456.

Botany, Horticulture, Forestry, &c.—*continued.*
Lycopodium varium and *L. villardieri*, XVI., 376.
Macrocystus, XIV., 562.
Marattia fraxinea, IX., 527.
Matai, Dried Specimens of, X., 417.
" Durability of, IX., 182.
Meryta sinclairii, II., 100.
Metrosideros robusta, IV., 267, 398.
Metzgera, n.s., XIII., 368.
Miramar Peninsula, Plants of, V., 349.
Monoclea forsteri, X., 418.
Morel *(Morchella esculenta)* in New Zealand, XIII., 343.
Mosses, Capsules and Spores, VII., 342.
Native Grasses (see *Grasses*).
" Plants, Growth and Cultivation, V., 451.
" " (Invercargill), V., 361.
Naturalized Plants, Auckland, XV., 268; Canterbury, IV., 284, 287; Kororarika, I., 157; *n.e.*, I., 100; II. 131, List 134; III., 158; IV., 282; Otago, VII., 370, 539; Port Nicholson, X., 362.
Nature of Lichens, X., 559.
Neglected Forest Products, XIII., 130.
" New Zealand Timbers, XI., 458.
Nelson District, Flora of, XIV., 301.
Nephrodium decompositum and *N. glabellum*, X., 398.
" *pentangularem*, X., 531.
New Species, I., 145; *n.e.*, I., 90; II., 88; III., 177, 208; IV., 290; VI., 241; IX., 547; X., 419; XI., 463; XII., 359, 393; XIII., 384, 290, 335; XIV., 329, 356, 359, 362; XV., 320; XVI., 329, 394; XVII., 235, 237, 269, 271, 272, 287, 297.
New Zealand Beeches, XVII., 298.
New Zealand Coffee, IX., 545.
" Flora, I., 39; *n.e.*, I., 443; IV., 224.
" " not in Handbook, III., 163.
" " Origin of, XIV., 485.
" Olives, XIII., 437; XIV., 375.
" Plants cultivated in Scotland, XIII., 428.
" Plants, Notes, XII., 380; XVII., 290.
" " Fertilization of certain, XVII., 455.
Nikau Tree, Branched, X., 357.
Nomenclature of Ferns, III., 213.
North Island, I., 56, 140; *n.e.*, I., 84, 463; Essay (Colenso), I; *n.e.*, I., 233.
Nursery Gardens, Wanganui, IV., 367.
Olearia nectori, XVI., 393.
Omaha Harbour, V., 363.
Oranges grown at Bay of Islands, XVI., 551.
Orchids, Fertilization of, XI., 418.
Orobranche, n.s., II., 106.
Otago, Botany of, I., Part iii., 22; *n.e.*, I., 81; X., 406.
" Plants, IX., 538.
Palms, &c., I., Essay (Ludlam); *n.e*, I., 297.
Panax lineare, IX., 492.

Botany, Horticulture, Forestry, &c.—*continued.*

Panax, n.s., IX., 529.
Paranthera, XI., 432.
Parasitism, Double, in *Loranthaceæ*, VIII., 329.
Persimmon, Fruit of the, XVII., 464.
Phœnogams and Ferns, Catalogue, III., 153; IV., 275.
Phormium tenax, II., 108, 111, 116, 415; III., *p.* 27, *p.* 35; IV., 370; V., 357.
Phyllocladus, X., 378.
Pilularia, IX., 547.
Pine, n.s., XVI., 370.
Pines and Fir-trees, VII., 192.
Pittosporads, IV., 260.
Pittosporum, n.s., III., 161.
Pituri, New Vegetable Product, XI., 411.
Plant and Tree Life, Physiology of, XVI., 571.
Plants, Chatham Islands, VII., 333. (See *Chatham Islands.*)
„ collected in Okarito, XI., 435; Notes on, XI., 439.
„ Distribution of, IV., 256.
Polygonum aviculare, IV., 238, 389; V., 310, 315.
Polypodium, n.s., X., 356.
Pomaderris, n.s., XI., 428.
Prickly Comfrey, X., 523, 528.
Pterostylis, Fertilization of, V., 352.
„ *squamata*, VII., 352.
Punui, n.s. (Stewart Island), XVII., 293.
Rata, IV., 267, 398.
Red Clover, Fertilization of, XVI., 561.
Rhagodia, XVI., 369; XVI., 408.
Rhizocarpæ, II., 107.
Rosaceous Plant, n.s., XVI., 382.
Roses, I., Essay (Ludlam); *n.e*, I., 301.
Ruahine Mountains, Flora of, XI., 567, 570.
Rumex, IX., 493.
Rye-grass, Ergot in, VII., 488.
Saccharomyces, XIV., 562.
Sapota costata, XII., 147.
Scinde Island, Ferns of, XIII., 370.
Seeds, Distribution of, XVI., 571.
Sellicra, IX., 542.
Senecio, n.s., V., 348; VII., 348; XV., 359.
„ *perdicioides*, IX., 630.
Sorghum, XIV., 373; XV., 261; XVI., 512.
Sporadanthus, XII., 324.
Stewart Island, Flora of, XIII., 323.
„ Ferns and Fern Allies of, XVII., 228.
„ Flowering Plants of, XVII., 213.
„ New Plants collected, XVI., 371.
„ Punui of, *Aralia lyallii*, n.s., XVII., 293.
Sugar-beet, Growth of, XIII., 142; Remarks on Dr. Curl's Paper, XIII., 441.
Sugar, Value of Beet-root, XIV., 365.

Botany, Horticulture, Forestry, &c.—*continued.*

Tahiti, VI., *a.*, 66.
Takapuna District, III., *p.* 50, 148.
Thames Goldfields, II., 89.
Thelymitra, Fertilization of, XIII., 291.
Thysanothecum, n.s., XIII., 385.
Timber, Durability of, VI., 390.
Titirangi, IV., 270, 393.
Totaramoana, Plant called, X., 554.
Trees for Avenues and Roads, VII., 519.
" Timber and Firewood, XI., 568.
Triodia in New Zealand, XIII., 437; XIV., 378.
Uncinia, n.s., XVII., 271.
Veronica, n.s., IX., 502.
" Synopsis of, XIII., 344.
Viola, XI., 415.
Waikato, III., 142.
Zostera nana, X., 392.

Chemistry—

Absorption of Antimony and Arsenic by Charcoal, VIII., 337.
Acetate of Copper in Manufacture of Iodine, V., 376.
Agricultural, I., 63; *n.e.*, I., 470; XVII., 469.
Alkalis, Solubility of, in Æther, VIII., 338.
Alkalinity of Carbonate of Lime, II., 150; IV., 323.
" certain Salts and Minerals, IV., 325.
Alkaloids, Absortion of, by Silicates, V., 375.
" from Fixed Oils, XI., 471.
" Solubility of, I., 31; *n.e.*, I., 434.
Allopathic Form of Zinc and Cobalt Salt, XIII., 387.
Amalgamating Processes, I., 31; *n.e.*, I., 434.
Amorphous Silica, Solubility of, in Ammonia, I., 32; *n.e.*, I., 435.
Antimony, Absorption of, by Charcoal, VIII., 337.
Argentic Sulphide, Electric Deportment of, VIII., 345.
Argentiferous Gold, Desilvering, I., 37; *n.e.*, I., 441; I., 43; *n.e.*, I., 446; I., 103; *n.e.*, I., 47.
" Salts, Experiments on, XII., 401.
Arseniates, Crystalline, II., 146.
Arsenic, Absorption of, by Charcoal, I., 32; *n.e.*, I., 435; VIII., 337.
Assaying, I., 37; *n.e.*, I., 441.
Auriferous Alloys, Production of, V., 370.
Barium, Monohydrate of Chloride of, III., 220; its Crystallization, III., 220.
Bark of *Coprosma grandiflora*, II., 152.
Bitter Substance in Karaka Nut, IV., 316.
Blowpipe, Hot-blast, II., 148.
Burning of Camphor on Water, XI., 473; XII., 403; XVI., 550.
Burrette, n.s., XIV., 392.
Calcic Carbonate in Solutions of the Alkaline Chlorides, X., 449.
Carbon, Evolution of Sulphur from, VII., 389.

Chemistry—*continued.*

Carbonate of Lime, Alkalinity of, II., 150; IV., 323.
Chemistry of Explosives, XVII., 468.
Citric Acid from Limes, XIV., 405.
Clay, Cause of the Suspension of, in Water, IV., 380.
" Fire, Auckland, VIII., 348.
" Precipitation of, by Neutral Salts, I., 32; *n.e.*, I., 435.
" Slate, Hydration of, VII., 384.
Coal Analysis (Preservation Inlet), I., 29; *n.e.*, I., 432; (Auckland), VIII., 387.
Conductive Power of Metallic Sulphides, IV., 311.
Copper, Absorption of, from Ammoniacal Solution by Cellulose, in Presence of Caustic Potash, IV., 332.
" Acetate for Sulphate in making Iodine, V., 376.
Coprosma grandiflora, Bark of, II., 152.
Coriaria ruscifolia (Tutu), II., 153; III, 237.
Cyanide of Potassium Preventing the Flouring of Mercury.
Cyanogen and Oxygen, Analogy of, VII., 379.
Decomposition of Argentic Oxide by Mercury, XII., 414.
Deposit in Shaft of Pumping Association, X., 456.
Deposition of Camphor towards Light, XII., 411.
Desilvering Argentiferous Gold, I., 37; *n.e.*, I., 441; I., 43; *n.e.*, I., 446; I., 103; *n.e.*, I., 47.
Dimorphism of Magnesia, XIII., 389.
Earthy Carbonates in Pure Water, X., 452.
Electric Deportment of Argentic Sulphide, VIII., 345.
Electro-magnetic Seismograph, IV., 330.
Electro-motive and Electrolytic Phenomena, IV., 313.
" Power of Metallic Sulphides, III., 232.
" Order of Metals, VIII., 334.
Essential Oils Whitening Precipitate of Mercuro-iodide and Mercuric-chloride, XI., 470.
Evolution of Heat during Hydration of Clay Slate, VII., 384.
" Sulphur from Carbon, VII., 389.
Explosives, XIII., 439.
Fibres liable to Calorific Changes, IV., 370.
Flax, IV., 370; VI., 260.
Flouring of Mercury, VIII., 334.
Geyser Waters, IX., 637.
Gold, Absorption of Sulphur by, III., *p.*, 74., 216.
" Desilvering Argentiferous, I., 37; *n.e.*, I., 441; I., 43; *n.e.*, I., 446; I., 103; *n.e.*, I., 47.
" Detection of, by Iodine and Bromine, II., 156.
" Nuclear Action of, V., 372.
" Nuggets in Drift, Formation of, V., 377.
" Oxidation of, by Oxygen, VIII., 339.
" Thames, from Pyritous Rocks, I., 45; *n.e.*, I., 449.
Graphite Oxygenized, Effects of, VIII., 347.
Hæmatococcus sanguineus, Colouring Matter of, VII., 404.
Hot-blast Blow-pipe, II., 148.
Hydro-carbons in Fats and Oils, XI., 527.

Chemistry—*continued.*
Hydrogen, Sulphuretted, Formation of, quickly, IV., 321.
Iodine, Substitution of Acetate for Sulphate of Copper in Manufacturing, V., 376.
Iron-sand (Taranaki), I., 34; *n.e.*, I., 437.
Karaka Nut, Bitter Substance in, IV., 316.
Lime, Alkalinity of Carbonate of, II., 150; IV., 323.
„ Phosphate of, I., 29; *n.e.*, I., 432.
Liquids, Mechanical Separation of, I., 30; *n.e.*, I., 433.
Manganese Ores for Cobalt, X., 448.
Mercuro-iodide, Test for Detection of Albuminous Matter, IX., 553.
Mercury, Flouring of, VIII., 334.
Metallic Sulphides, List of, III., 234.
Metals, Electro-motive Power of, III., 232.
„ Electro Order of, VIII., 334.
„ reduced from Metallic Sulphides, III., 225.
Mineral Oils, VI., 252.
„ Waters of New Zealand, X., 423.
Minerals, Alkalinity of certain, IV., 325.
Moa Egg-shell, Analysis of, XIII., 225.
Mode in which Oil acts as a Nucleus in Super-saturated Saline Solution, XII., 407.
Modification of Writing Ink, IX., 557.
Monohydrate of Chloride of Bårium, III., 220.
„ its Crystallization, III., 220.
Negative Pole formed by Sulphides, III., 222.
Nickel (see *Mineralogy*).
Nuclear Action of Gold, V., 372.
Nuggets, Formation of Gold, in Drift, V., 377.
Oils, Mineral, VI., 252.
Oxidation of Gold by Oxygen in Presence of Water, VIII., 339.
„ Platinum and Silver, VIII., 332.
Oxides, Conducting Power of certain, IV., 311.
Oxygenized Graphite, VIII., 347.
„ Platinum, VIII., 347.
Paraffin at Waiapu, XIV., 397.
Periodide and an Iodo-carbonate of Lead, XIII., 388.
Petroleums, XI., 469
Phormium tenax, VI., 260.
Phosphates, Crystalline, II., 146.
Phosphine, Preparation of, spontaneously inflammable, XIV., 391.
Photographic Effects produced with Silver Salts, New Theory, XIV., 403.
Platino-iodides of the Alkaloids, XI., 523.
Platinum, Absorptive Properties of, III., 221.
„ its Fusibility, II., 155.
„ Oxidation of, VIII., 332.
„ Oxygenized Chemical Effects of, VIII., 347.
Poison in *Brachyglottis repanda* and *B. rangiora*, XIV., 400.
Potassium, Sulphocyanide of, IV., 330.
Pottery Clays of Auckland, XVI., 443.

Chemistry—*continued.*
Precipitate formed by Mercuric Salts in Presence of Essential Oils, XII., 412.
Refrigeration, XIV., 394.
Resin, Fragrant Volatile Substance from, I., 32; *n.e.*, I., 435.
Seismograph, Electro-magnetic, IV., 330.
Silica, Absorptive Power of, II., 151; V., 375.
" Solubility of Amorphous, in Ammonia, I., 32; *n.e.*, I, 435.
Silver in Gold, Makara, I., 27; *n.e.*, I., 430.
" Ore of Richmond Hill, IX., 556.
" " Stewart Island, II., 399.
" Oxidation of, VIII., 332.
Strata from Mount Eden, VII., 405.
Sulphides, Conductive Power of, IV., 311.
" Electro-motive Power of, III., 232.
" List of, III., 234.
" Pole of Battery formed by, III., 222.
" Reduction of Metals by, III., 225.
Sulphocyanides, Double Formation of, I., 32; *n.e.*, I., 435.
" of Potassium, IV., 330.
Sulphur, Absorption of, by Gold, III.; *p.*, 74, 216.
" Evolution of, from Carbon, VII., 389.
Sulphuretted Hydrogen formed quickly, IV., 321.
Suspension of Clay in Water, XI., 485.
Taranaki Iron-sand, I., 34; *n.e.*, I., 437.
Tomlinson's Cohesion Figures, XI., 490.
Torbanite, Formation of, VII., 387.
Towhai Bark, I., 28; *n.e.*, I., 431.
Tutu, II., 153.
Volatile Fragrant Substance from Resin, I., 32; *n.e.*, I., 435.
Water, Analysis of, from—
Hot Springs, I., 70; *n.e.*, I., 476.
Rain, I., 27; *n.e.*, I., 431.
Shortland, VI., 399.
Wangaehu River, I., 28; *n.e.*, I., 431.
White Island, III., 282.
Wet Process in Production of Auriferous Alloys, V., 370.
Winslow's Soothing Syrup, IX., 637.

Colonial Industries—
Agricultural Implements, I., 34; *n.e.*, I., 436.
American Blight, IV., 429.
Apparatus for detecting Heat in Flax Bales, III., *p.*, 110.
Artesian Wells, III., *p.*, 89, 251.
Artificial Stone, II., 411.
Beet-root Sugar, V., 485.
Blight, IV., 429.
Building Materials, I, 25; *n.e.*, I., 429; VIII., 123.
" " of Otago, IX., 108, 134.
Concrete, I., 26; *n.e.*, I., 429; VIII., 152.
Cultivation of Native Trees, III., 181; V., 452.

Colonial Industries—*continued.*
Drainage, Thorough, II., 211.
Ensilage, XV., 524.
Ergot in Rye-grass, VII., 488.
Fern-cutting Machine, I., 34; *n.e.*, 437.
Flax (see also under *Botany*).
„ Chemistry of, VI., 260.
„ Irrigation, II., 129.
„ Machines, Power to work, III., *p.*, 48.
„ Preparation of, I., 66; *n.e.*, I., 472; I., 168; *n.e.*, I., 114; III., 27, *p.* 35, *p.* 38, *p.* 57, *p.* 58, *p.* 90, *p.* 106.
„ To detect Heat in Bales of, III., *p.*, 110.
Floods, Prevention of, V., 111.
Forest-culture, VII., 181, 524.
Gas-producing Materials, IV., 146.
Glassware exhibited, XV., 525.
Granolithic Cement, Manufacture of, XV., 524.
Grasses, IV., 292, 309.
Graving Docks, I., 52; *n.e.*, I., 455.
Harvesting Crops Independent of Weather, XV., 524.
How New Zealand may continue to grow Wheat and other Cereals, XI., 149.
Hydraulic Mortar, I., 62, 157; *n.e.*, I., 101, 468.
Industries most suitable to New Zealand, XIII., 431.
Irrigation, Flax, II., 129.
„ Sewage, II., 214.
Lime, Phosphate of, I, 29; *n.e.*, I., 432.
Manganese and Zostera Marina for Export, X., 568.
Meat, Preservation of, II., 396.
Mill-power, Economizing Water for, IV., 141.
Mortar, I., 62, 157; *n.e.*, I., 101, 468.
Mulberry Trees as Food for Silk-worms, IV., 424.
Native Trees, Cultivation of, V., 452.
Neglected Forest Products, XIII., 130.
Oranges grown at Bay of Islands, XVI., 551.
Paper-making Materials, III., *p.*, 48; VI., 55.
Patent Slip, I., 50; *n.e.*, I., 453; VI., 14.
Pottery Clays, XVI, 443.
„ exhibited, XV., 525.
Preservation of Meat, II., 396.
„ Timber, VI., 390.
Raising Trees for Timber and Firewood, X., 568.
Reclamation of Sand-wastes, V., 108.
Rye-grass, Ergot in, VII., 488.
Saw-dust Fuel, VI., 382.
Sericulture, III., *p.*, 106; IV., 424; XIII., 450; XVII., 457.
Sewage Irrigation, II., 214.
Sheep-wash, III., *p.*, 37.
Sorghum, XIV., 373; XV., 261; XVI., 512.
Stone, Artificial, II., 411.
Sugar Beet, Cultivation of, XII., 431; n.s., XIII., 142. Remarks on Dr. Curl's Paper, XIII, 441.

Colonial Industries—*continued.*
Sugar Beet, V., 485.
„ Value of Beetroot, XIV., 365.
"Taranaki," s.s., Raising the, II., 203.
Timber, Preservation of, VI., 390.
Tutu as a Dye-wood, III., 243.
Water-power, Adaptation of, III., 315.
Water-supply, Towns, IV., 141.
Wells, Artesian, III., *p.*, 89, 251.

Ethnological—
Aboriginal Câches near Wanganui, IX., 220.
Aborigines—
Chatham Islands, III., 311.
„ Skeleton, V., 304.
Chert Flakes, I., 19; *n.e.*, I., 7.
Implements, IV., 104, 116; VII., 88; VIII., 86.
Land, Tenure of, V., 24.
Language, I., 40; *n.e.*, I., 444.
„ Maori and Indo-European, III., 313.
Living, Mode of, V., 33.
Ancient Manufactory of Stone Implements, XII., 150.
„ New Zealanders' Ignorance of Use of Projectiles, XI., 106; XII., 50.
Arrow Propulsion amongst Maoris, X., 97. (See also *Ancient New Zealander.*)
Barat or Barata Fossil Words, XI., 157; XII., 223.
Better Knowledge of Maori Race, XI., 77; XII., 108; XIII., 57; XIV., 33; XVI., 568.
Boomerang, Origin of, XV., 459.
Carved Stone Bird Rorotangi, XIV., 104.
Colour-sense of the Maori, XII., 153; XIV., 49, 477; XV., 542.
Comparative Philology and its Relation to Polynesia, XVI., 559.
Folk-lore, XV., 545.
Fragment of Samaritan Pentateuch, XVI., 554.
Hawaiian Race, Decline of and Disease among, XV., 526.
Hawaii-nei and the Hawaiians, XV., 467.
Historical Incidents and Traditions, &c., XIII., 38; XIV., 3.
Kahui Tipua, Cameron's Theory respecting, XI., 553; XII., 159.
Language, Origin of, XV. 530.
Mahori or Maori Migrations, IX., 229.
Maori Burial-place, VII., 86.
„ Canoe, XI., 71.
„ Causes leading to Extinction of, XIV., 459.
„ Cooking-places, VIII., 103.
„ „ at Mouth of Rakaia, Observations on Hutton's Paper, IX., 670.
„ Comb and Arrow-head, XIII., 436.
„ Curiosities, XIV., 565.
„ Gods of the, VII., 5.
„ House, I., 41; *n.e.*, I., 445.

Ethnological—*continued.*

Maori House, Canterbury, VIII., 172.
„ Implements, IV., 104, 116; VII., 88; VIII., 86.
„ Lake Pas, V., 101.
„ Land Tenure, V., 24.
„ Living, Mode of, V., 33.
„ Mythology, VII., 3; VIII., 108.
„ Numerals, IV., 50.
„ Paintings, I., 18; *n.e.*, I., 6.
„ Poem, V., 456.
„ Population, I., Essay (Colenso), on Maori Races, 76; *n.e.*, I., 424.
„ Races, I., Essay (Colenso), *n.e.*, I., 329; I., Essay (Shortland), *n.e.*, I., 339; VIII., 3.
„ Te Rauparaha, Life and Times of, V., 19.
„ Traditions, Historical Value of, IV., 51, 371.
„ „ and Mythology, VII., 3; VIII., 108.
„ Vocabulary, IV., 51.
„ Whence of the, IV., 23; VI., *a.*, 25.
Maoris, Conversion and Civilization of, XIV., 123.
Maui, Tradition of, XIV., 555.
Moriori, Canoes, IV., 354; Skeleton, V., 304.
„ Connection, XII., 237.
Morioris, Traditions, Manners, and Customs of, IX., 15.
Moundbuilders of North America, XII., 447.
Myth of Kae and the Pet Whale of Tinirau, XII., 459.
Pedigree of Man, IX., 654.
Port Nicholson and the Natives in 1839, XII., 32.
Rock Paintings from South Africa, XIV., 557.
Runes, XIII., 439.
Savage and Barbaric Survivals in Marriage, IX., 249; Discussion, IX., 642.
Swiss Lake Dwellings, XIV., 551.
Taupo and East Coast Tribes, Traditions of, XV., 433.
Traditional History of South Island Maoris, X., 57.
Vegetable Food of Ancient New Zealanders, XIII., 3.
Weka Pass Rock Paintings, XI., 154; XV., 534; XV., 535.

Geography—

Afghanistan and Central Asia, XIII., 438.
America, South, V., 425.
Arid Island, I., 163; *n.e.*, I., 108.
Australian, and Topography, IV., 364.
Botanical, I., 44; I., Part III., Essay; *n.e.*, I., 157, 448.
Central Alps of New Zealand, XVI., 562.
Chatham Islands, IV., 63.
Cook Strait a River, VII., 448.
Currents, Ocean, III., 322.
Discovery of New Zealand, III., *p.*, 65.
Europe and America, Travels in, IX., 615.
Fauna of New Zealand, Of the, V., 227.

Geography—*continued.*
Green's Ascent of Mount Cook, XV., 528.
Islands of Western Polynesia, XIV., 538.
Lake Districts of Auckland, IX., 1.
" " Otago, III., *p.*, 70, 254.
" Taupo, V., 4.
" Wakatipu, V., 394.
Longitude and Latitude, I., 48; *n.e.*, I., 451; III., *p.*, 82; VIII., 441.
Lord Howe's Group, Central Polynesia, XVI., 559.
Macquarie Island, XV., 484.
Milford Sound, Recent Discoveries, XVI., 454.
Mining Districts, Nelson and Queensland compared, III., 287.
Mount Cook, Height of, XII., 452.
New Guinea, VI., *a.*, 81.
" Zealand, Discovery of, III., *p.*, 65.
" " Fauna, V., 227.
" " Physical Changes in, VII., 112, 499.
Observatory, Wellington, VII., 502.
Ocean Currents, III., 322.
Otago Lake District, III., *p.*, 70, 254.
Physical Geography of North Island, XVI., 571.
Polynesia, IX., 44.
Rapa Island, I., 128; *n.e.*, I., 75.
Ruapehu, Journeys to Summit of, XII., 423.
Rurima Rocks, V., 151.
Russia and the Turkomans, XIII., 439.
Sandymount District, Otago, VI., 434.
Sounds, West Coast, IV., 9.
South America, V., 425.
Tauakira, Ascent of, V., 405.
Taupo Lake, V., 4.
Wakatipu Lake, V., 394.
Wangaehu River, I., 28; *n.e.*, I., 431.
Wellington, Geographical Features, IV., 128.
" Harbour a Lake, VII., 451
" Observatory, Longitude of, VII., 502.
West Coast Sounds, IV., 9.

Geology and Palæontology—
Alluvial Deposits, Otago, III., 270.
" Waikato, IV., 333.
America, South, V., 425.
Ammonite from Nugget Point, XVI., 549.
Antipodes Island, II., 178.
Aorere River, History since Miocene Times, XVI., 548.
Arid Island, I., 163; *n.e.*, I., 108.
Artesian Wells, at Avonside, XIII., 410.
Auckland Coalfields, VIII., 387, 428.
" Islands, II., 179.
" Land rising in, I., 66; *n.e.*, I. 472.
Auriferous Cements, Distribution of, XIII., 429.

Geology and Palæontology—*continued.*
Auriferous Cements of Mount Arthur District, XIII., 428.
Australian, Tasmanian, and New Zealand Coalfields, X., 532.
Barrier Island, I., 32; *n.e.*, I. 435.
Beaches raised, I., Essay (Crawford), 22.; *n.e.*, I., 324.
Belemnites of New Zealand, X., 484.
Bidwell's Front Hills, XII., 416.
Bones from Caves at Highfield, XV., 526.
" of Mammal, from Glenross, XV., 542.
Boulders and Travelled Rocks, I., 78; *n.e.*, I., 19.
Bounty Island, II., 179.
Brachiopoda Fossil, XI., 537.
Campbell Island, II., 178.
Cañon District of Colorado, XVII., 458.
Canterbury Mountains, Geological Structure, XVII., 337.
Causes determining Courses of Rivers, &c., XI., 524.
Chalk near Oxford, XII., 439.
Changes in Apex of Mount Cook, VI., 379.
" Elevation of Waikato District, X., 34.; XVI., 459.
" in Hataita Valley, XVII., 342.
Chatham Islands, I., 180; *n.e.*, I., 127; II., 183.
Clutha District, Otago, I., 32; *n.e.*, I. 435.
Coal and Lignite in Southland, XVI., 571.
" Brown, III., *p.*, 49, 244.
" Deposits, Auckland, VIII., 387, 428.
" " Otago, II., 370.
" " Wellington, VIII., 379.
Coast Levels, North Island, I., 38; *n.e.*, I., 442.
" Line at Manukau Heads, Change in, XI., 514.
" Line, Changes in Level in North, XIII., 398.
Concealed Coal, XV., 523.
Cook, Mount, III., *p.*, 53; VI., 379.
" Strait a River, VII., 448.
Craters, White Island, I., 57; *n.e.*, I., 463.
Crystalline Rocks, XIV., 450.
Detached Shingle Beaches, X., 475.
Diamond Fields of South Africa, XVII., 457.
Drift-beds of Whakapuaka and Port Hills, and Remarks on Boulder Bank, XVI., 576; XVII., 344.
Drury Coalfields, III., *p.*, 49, 244.
D'Urville Island Copper-mine, XI., 525.
Dyke near Heathcote, XIII., 391.
Earth's Rotation and Volcanic Action, VIII., 353, 409.
Elevation of the Waikato, VIII., 430.
Evidence as to Relations of New Zealand Fauna, V., 252.
Fauna, Geological Relations of the New Zealand, V., 227.
Formation of Canterbury Plains, VIII., 369.
" Mountains, V., *a.*, 25, 439; VI., 284.
Foraminifera at Petane, XIII., 393.
Fossil Bird, *Anas finschi*, IX., 599.
" Cetaceans, XIII., 434; XIV., 545.
" Fishes, Teeth of, XIII., 456.

Geology and Palæontology—*continued.*
Fossil Flora of New Zealand, XI., 536.
„ Penguin, II., 403; IV., 341.
„ Reptilia, VI., 333; VII., 474.
„ Shells, II., 163.
Fossils, Description of, XVI., 576.
„ Exhibited, XIV., 565, 567.
„ from Takapau, XV., 542.
Geology of New Zealand, V., 420.
Glaciation, Otago, VI., 309.
Glacier Period, V., 384, 429; VI., 294, 383; VII., 440, 447.
Glaciers, Extinct, VI., 297, 385.
„ Nelson, IV., 336.
„ Pleistocene, VII., 409, 497.
Gold-bearing District, Rangiriri, I., 36; *n.e.*, I., 439.
Goldfields, Otago, III., 270.
„ Thames, VI., 272.
Great Barrier Island, I., 32; *n.e.*, I., 435.
Hæmatite and Spathic Iron Ores, XII., 424.
Hawke's Bay, Geology of North Portion, IX., 565.
Hot Springs, X., 560.
Igneous Rocks of East Coast of Wellington, XVI., 547.
„ „ Wellington, VIII., 375.
Ironstone at Kawakawa, Deposit of, XVII., 446.
Kainozoic Rocks, I., Essay (Crawford), 9; *n.e.*, I., 312.
Kawhia and Mokau Country, XVII., 447.
Lake, Port Nicholson a Fresh-water, VI., 290, 378.
„ Systems, New Zealand, VIII., 369.
„ Wakatipu, V., 394.
„ „ Formation of, XIV., 407.
Land rising, Auckland, I., 66; *n.e.*, I., 472.
Lava Beds, VII., 460.
„ Caves, Three Kings, II., 162.
Lignine Origin of Quartz Pebble-beds of Southland, XVII., 467.
Liodon Teeth, VI., 358.
Lower Miocene Formation in New Zealand, XVI., 552.
Manawatu River, II., 358.
Manukau, II., 161.
Mataura, Otago, I., 32; *n.e.*, I., 435.
Mercurial Springs, X., 535.
Mesozoic Rocks, I., Essay (Crawford), 8; *n.e.*, I., 311.
Middle Island Glaciers, VI., 297, 385.
Milford Sound, Recent Discoveries, XVI., 454.
Mining Districts, Comparison of, III., *p.*, 107, 287.
Miramar Peninsula, V., 396; XI., 530.
Moeraki Tertiaries, II., 166.
Mountains, Formation of, V., 439, *a.*, 25.
Mount Cook, III., *p.*, 53.
„ „ Change in Apex, VI., 379.
„ Eden, Lava Beds of, VII., 460.
„ Franklin, Ascent of, XVII., 350.
Nelson Glaciers, IV., 336.

Geology and Palæontology—*continued.*
New Zealand a Post-glacial Centre of Creation, X., 3.
" Geology of, V., 420.
" Lake System, VIII., 369
Nomenclature of Rocks, III., *p.*, 74, 285.
North Island, I., 56; Essay (Crawford), *n.e.*, I., 305; III., 16.
" Coast Levels, I., 38; *n.e.*, I., 441.
Oamaru Tertiaries, II., 166.
Orakei Beds near Auckland, Age of, XVII., 307.
Old Lake Basins of Otago, Origin of, XVI., 550.
Origin of Mineral Veins, IX., 560.
Otago Alluvial Deposits, III., 270.
" Glaciers, VI., 309.
" Sand Dunes, III., 263.
Pakihi Island, I., 73; *n.e.*, I., 479; I., 167; *n.e.*, I., 113.
Palæozoic Rocks, I., Essay (Crawford); *n.e.*, I., 307.
Pareora and Ahuriri Formation, IX., 590.
Penguin Fossil, II., 403; IV., 341.
Pitch-stones and Quartz Porphyries of Mount Somers District, XIII., 432.
Pleistocene Glaciation, VII., 409, 497.
" " and Post-glacial Moas, IX., 633.
Port Nicholson a Fresh-water Lake, VI., 290, 378; VII., 51.
Quartz Pebbles of Southland Plains, XV., 414.
Rangiriri Gold-bearing Rocks, I., 36; *n.e.*, I., 439.
Rangitikei River, II., 353.
Reptilia Fossil, VI., 333; VII., 474.
Reptilian Beds of New Zealand, IX., 581.
Rhynchonella, XIII., 396.
Rocks, I., Essay (Crawford); *n.e.*, I., 305.
" Nomenclature of, III., *p.*, 74, 285.
" Travelled, I., 79; *n.e.*, I., 19.
Sand Dunes on West Coast, XIV., 89.
" " Otago, III., 263.
" Worn Stones, II., 247; III., *p.*, 93; V., 105.
Salt Spring near Hokianga, XI., 512.
Saurian Remains, II., 186; VI., 335.
Shells, Tertiary, Otago, VII., 458.
Silt Deposit at Lyttelton, XV., 411.
Slate in connection with Granite, Analysis of, XVII., 340.
South America, V., 425.
Southern Alps, Geological Structure of, XVII., 332.
Stewart Island, II., 183.
Structure of Banks Peninsula, XI., 495.
Teeth of Liodon, VI., 358.
Terraces and Raised Beaches, I., Essay (Crawford); *n.e.*, I., 324.
Tertiary Beds, Wanganui, II., 163; VII., 453.
" Corals and Bryozoa of New Zealand, XIII., 429.
" Fossils, IX., 593; XV., 410; XIV., 409.
" Series, Moeraki and Oamaru, II., 166.
" Shells, Otago, VII., 458; new, XVII., 313.
Thames Goldfields, VI., 272.

Geology and Palæontology—*continued.*
Thames Goldfield and Laws which govern Distribution of Gold, XV., 525.
Thermal Springs at Hanmer Plains, XIV., 414.
„ Spring at Lyttelton, XVI., 447.
Three Kings, Lava Caves, II., 162.
Tokatea Tunnel, Stones from, VI., 402.
Travelled Rocks and Boulders, I., 79; *n.e.*, I., 19.
Trilobite (*Homalonotus expansus*), IX., 602.
Volcanic Action, Effects of, on Earth's Rotation, VIII., 352.
„ Rocks, I., Essay (Crawford); *n.e.*, I., 322.
Volcanoes and Geysers, XII., 418.
„ of Sandwich Islands, XVI., 547.
Waikato Alluvial Deposits, IV., 333.
„ Coal, III., *p.*, 49, 244.
„ Elevation of the, VIII., 430.
Waimakariri, Lower Gorge, XVI., 449.
Waitemata Series, III., *p.*, 49, 244.
Wakatipu Lake, V., 394.
Wanganui Tertiaries, II., 163; VII., 453.
Warmer Climate in Former Geological Periods, X., 459, 470.
Waterworn Pebbles in the Soil, XVII., 341.
Wellington Coal Deposits, VIII., 379.
„ District, II., 343.
„ Harbour a Lake, VI., 290, 378; VII., 451.
West Coast, Wellington, II., 158.
Western Flanks of Mount Cook, IX., 577.
White Island, I., 57; *n.e.*, I., 463; III., *p.*, 79, 278; VI., 386.
Why few Fossils are found in Upper Palæozoic Rock of New Zealand, IX., 561.
Wind-formed Lakes, XII., 415.
Wind-worn Stones, V., 105.

Mineralogy and Mining—
Alkalinity of Minerals, IV., 325.
Antimony, Absorption of, by Charcoal, VIII., 337.
Arsenic, Absorption of, by Charcoal, VIII., 337.
Assaying, I., 37; *n.e.*, I., 441.
Carbonaceous Mineral, III., 250.
Coal, III., *p.*, 38.
„ Auckland, VIII., 387.
„ Imported, Table of, II., 383.
„ Otago, II., 370.
„ Relative Value of New Zealand and New South Wales, IV., 146, 373
„ Southland, I., 36; *n.e.*, I., 440.
„ Steam Purposes, for, IV., 151.
„ Value of, for Gas, IV., 146, 372.
„ Wellington, Probability of, in, VIII., 379, 413.
„ Westland, II., 368.
Coalfields, II., 370, 378; VIII., 387.

Mineralogy and Mining—*continued.*
Copper, Absorption of, IV., 332.
„ Acetate for Sulphate in making Iodine, V., 376.
Copperas, IV., 364.
Diamond Fields of South Africa, XVII., 457.
D'Urville Island Copper-mine, XI., 525.
Frost, Plants Injured by, XVII., 447.
Gold, Alluvial, Wellington, II., 160.
„ Detection of, by Iodine and Bromine, II., 156.
„ Economizing Water-power for, IV., 141.
„ Electro-motive Power of, IV., 315.
„ Improvements in Extracting and in Saving, II., 174.
„ in Mackenzie Country, X., 481.
„ in Wellington, X., 477.
„ Mining, Submarine Boat for, V., 481.
„ Mines, II., 367.
„ Nuclear Action of, V., 372.
„ Nuggets in Drift, Formation of, V., 377.
„ Occurrence of, in North and South Islands, II., 400.
„ Oxidation of, VIII., 339.
„ Peculiar Form of, in Quartz, XVII., 447.
„ Pseudomorphous, Form of, XIV., 457.
„ Quartz, I., 61; *n.e.*, I., 468.
„ Saving of, I., 72; *n.e.*, I., 477; I., 74; *n.e.*, I.. 479; II., 174.
„ Sluicing, IV., 141.
„ Submarine Boat for Mining for, V., 481.
„ Sulphurization of, V., 408.
„ Thames, I., 45; *n.e.*, I., 449; VI., 272.
„ Wellington, Alluvial, II., 160.
„ Yield of, throughout the World, I., *Appendix*, Part i.; *n.e.*, I., 439.
Gold-bearing Quartz from Port Nicholson, XVI., 548.
Iron Sand, Taranaki, I., 34; *n.e.*, 437; II., 400.
„ Pyrites, III., *p.*, 75, 287.
Mallite, IV., 364.
Mercury, Native, III., *p.*, 85, 252.
„ Remedy for the Flouring of, VIII., 334.
Metallic Ores discovered, List of, II., 362.
Mineral Occurrences in Dusky Sound, XVII., 462.
„ Resources of New Zealand, XVI., 575.
„ „ Nelson, V., 484.
Minerals collected by Geological Survey Staff, XIII., 430.
„ Exhibition of, XIII., 455, 487.
„ from the Wade and Makara, Notes on the Identity of, XVII., 448.
„ New, XV., 409; XVI., 448.
„ Exported, II., 384.
„ of New Zealand, X. 490.
Mineralogy of New Zealand, XIV., 418; XV., 361.
Mines, School of, III., *p.* 92, *p.* 94, *p.* 95.
Mining in New Zealand, II., 361.
„ Districts, Nelson and Queensland compared, III., 287.

Mineralogy and Mining—*continued.*
Nelson, Minerals of, V., 484.
Nickel in Auckland District, X., 454.
Orepuki Black Sand, XIII., 462.
Origin of Mineral Veins, Crawford, IX., 560.
Platinum, its Fusibility, II., 155.
" in Quartz-lodes at Thames, XV., 419.
Potassium, Use of Cyanide of, to prevent flouring of Mercury, VIII., 334.
Pumice, I., 38; *n.e.*, I., 442.
Pyrites, III., *p.*, 75, 287.
Quartz-crushing, VIII., 176.
" at Thames, IX., 209.
Rock (Granite), Analysis of, X., 505.
Sand, Iron, Taranaki, I., 35; *n.e.*, I., 437; II., 400.
Silver, Oxidization of, VIII., 332.
Sulphur from White Island, III., 284.
Tin Ore in New Zealand, XIV., 534.

Miscellaneous—
Acclimatization of Salmon, VI., 436; VIII., 205.
Addresses, I., 3; *n.e.*, I., 2; VI., 453.
" Auckland Institute, I., 135; *n.e.* I., 456; II., 405; VI., 394; VII., 513; IX., 638; X., 545; Auckland, XII., 441; XIII., 438; XIV., 546; XV., 531; XVI., 558.
" Canterbury Philosophical Institute, VI., 407, 419; IX., 644; X., 37; XI., 495; XII., 451; XIII., 445; XIV., 503; XVII., 459.
" Nelson Philosophical Society, XVI., 573; XVII., 470.
" New Zealand Institute, XVI., *a.*, 19; XVII., *a.*, 19.
" Otago Institute, II., 425; V., 470; VI., 440; VIII., 434; IX., 647; IX., 656; X., 562; XI., 561; XIV., 563; XV., 539; XVI., 566.
" Southland Institute, XIII., 458; XIV., 568; XV., 545.
" Wellington Philosophical Society, II., 396; V., 407; VI., 367; VII., 467; VIII., 403; X., 519, 539; XI., 539; XII., 433; XIII., 426, 433; XIV., 531; XIV., 541; XV., 523; XVI., 547; XVII., 443.
Adipocere, III., *p.*, 73.
Æolus Vinctus, XI., 547.
Aerial Transit, X., 170, 173, 176.
Aerolite, Fall of, IX., 653.
Alcohol, XVII., 468.
Allan and Richard Cunningham, XII., 459.
Alluvial Deposits, Otago Goldfields, III., 270.
Altitudes, Calculation of, II., 223.
Ancient Science, XV., 527.
Antartic Exploration, XI., 31.
Apple-blight, IV., 429.
Applied Science, Canterbury, I., 181; *n.e.*, I., 129.
Architecture and Fine Arts, XII., 448.

Miscellaneous—*continued.*

Arctic Exploration, XI., 547.
Art and Literature, XIII., 439.
" Nature of, II., 251.
" Perspective, XII., 432.
Artesian Wells, III., *p.* 84, *p.* 89, 251.
Artificial Stone, II., 411.
Ascent of Tauakira, V., 405.
" of Mount Franklin, XVII., 469.
Auckland Addresses (see *Addresses*).
" Harbour Defence, IV., 397.
" Street Improvements, III., *p.*, 90.
Avenues, Trees suitable for, VII., 519.
Barata Numerals, V., 131.
" Table of, V., 137.
Beetroot Sugar, V., 485.
Beach Protection, XI., 146.
Beginnings of Life, VI., 400.
Blowing up Snags with Dynamite, X., 161.
Blight in Apple-trees, IV., 429.
Blood, Red Corpuscles in the, VII., *a.*, 31.
Boat, Submarine, for Gold-mining, V., 481.
Books from Harvard College, IV., 377, 419.
Bridge over Grey River, Construction of, IX., 310.
Buddhism and its Evolution Theories, XVII., 454.
Buddhistic Philosophy, XIV., 569.
Building Materials, Otago, VIII., 123.
Burial-place, Native, Sumner, VII., 86.
Burns, On, XIV., 569.
Calculation of Distances by Reciprocal Vertical Angles, XI., 132.
Canoes, Moriori, IV., 354.
Canterbury Addresses (see *Addresses*).
" Museum, History of, XIV., 503.
" List of Plants, II., 121.
" Vegetation, II., 118.
Cape of Good Hope Stone Epoch, IV., 157, 380.
Capital and Labour, Co-operation as regards, III., *p.* 66, *p.* 67.
Cat's Eye Bay, XVII, 435.
Cave Paintings, Australian, XVII., 450.
Cavern near Cook's Well, XII., 147.
Caves, Lava, Three Kings, II., 162.
" Moa, Earnscleugh, V., 102; VII., 138, 141, 542.
" Sumner, VII., 54, 528, 531, 534.
" Takiroa, I., 18; *n.e.*, I., 6.
" Wakatipu, VIII., 97.
Celtic Origin of English Vowel Sounds, I., 43, 125; *n.e.*, I., 73.
Central Forces, III., *p.*, 101.
Ceramic and Industrial Art Specimens, XII., 453.
Charring Timber as Protection against Teredo, IX., 183.
Chatham Islands, I., 173; *n.e.*, I., 119; IV., 63.
Circular Motion, XIV., 134.
Citizenship of Women, XVI., 560

Miscellaneous—*continued.*

Civilization, its Effect on a New Country, II., 299; III., 326.
" of the Pacific, IX., 59.
Coal for Steam Purposes, IV., 151.
Colonial Museum, Additions, XIV., 531, 533.
" Standard Survey, IX., 96.
Colour Sense, XIII., 430.
Compass, Ship's, Effect of Latitude on, V., 128.
" Irregular Action of, on Steamers, VI., 10.
Compound Engine, V., 144.
Concerning Alcohol, XII., 448.
Consumption in Otago, Cause of, VII., 543.
Conversazione, Suggestions for a, VIII., 419.
Co-operation, XIV., 569.
" as regards Capital and Labour, III., *p.* 66, *p.* 67.
Corpuscles in Blood, VII., *a.*, 31.
Cosmography, VI., 401.
Creation, Man's Place in, II., 267.
Currents, Ocean, IV., 362; VIII., 446.
Curse of Charity, XVII., 453.
Darwin, Charles, Address to, from Otago Institute, XIII., 453.
" Address to Memory of, XV., 541.
Darwinism, V., 444.
Day in which Cook took Possession of New Zealand, X., 99.
Deep-sea Dredging, III., *p.*, 53.
Defence of Auckland Harbour, IV., 397.
Deflection of Shingle-bearing Currents, XI., 144.
Development, XVII., 467.
Direct Creation of Primordial Types, IX., 655.
Discovery of New Zealand, III., *p.*, 65.
Disease among Sheep, XII., 446.
Distress in England, XII., 447.
Docks, Graving, I., 52; *n.e.*, I., 455.
Doctrine of Mind Stuff, XII., 205, 215; XIII., 462; XIV., 107.
Does Morality depend on Free Will? XV., 523.
Domestic Æsthetics, XI., 558.
Drainage, I., 192; *n.e.*, I., 141.
" and Sewerage Irrigation, II., 214.
" of Christchurch, X., 556.
" Remuera Swamp, II., 219.
" Surface-fall, a Guide to, II., 213, 412.
" Thorough, II., 211.
Draining of Towns, IX., 260; IX., 29.
Dredging, Deep-sea, III., *p.*, 53.
Dunedin Field Naturalists' Club, Reports, XIII., 452.
Duplex Telegraphy, VII., 396.
Durability of Timber, VI., 390.
Dynamics, Error in, XIV., 543.
Earliest Settlers, XV., 421.
Early History of New Zealand, XIII., 452.
" Records of Auckland, X., 552.
Earth a Cinder, X., 559.

Miscellaneous—*continued.*

Edgar Allan Poe, XIII., 438.
Earthquakes, XVII., 457.
Education as a Science, XI., 547.
" Claims of Science on, VII., 168.
" Early, VII., 175.
" Effects of School Life on Sight, XV., 472.
" General, VII., 154.
" Higher, III., *p.*, 110.
" National, VII., 168; XVII., 465.
" Scheme for, in New Zealand, II., 196.
" Technical, III., *p.*, 107.
" University, II., 192; VII., 154.
Electric Lighting, VII., 403; XIV., 562.
" Lamp, VII., 403.
Elements of Mathematics, IX., 304.
Eliot, George, Poems, XII., 455.
Engine, Compound, V., 144.
English Vowel Sounds, Origin of, I., 43, 125; *n.e.*, I., 73.
Ensilage, XV., 524.
Evolution, from Religious Side, XIV., 551.
Exodus of Israel, XIII., 441.
Fauna and Flora of New Zealand, Origin of, XVII., 459.
Felting Steam Boilers, VI., 32.
"Field Boiler," Use of Salt Water in the, III., 318.
Firing Torpedoes by Electricity, X., 164.
Flax (see also under *Botany*, and *Colonial Industries*).
" as a Paper-making Material, III., *p.*, 48.
" Detection of Combustion in, IV., 423.
" Fibre, Leaf, and Gum, II., 108.
Floating Breakwaters, XVII., 449.
Floods and Methods for Control, X., 180.
" Destructive Effects of, on River Wolga, IV., 374.
" Prevention of, V., 111.
" Protection of Land from, IV., 153.
Forest Culture, VII., 181, 524; XVI., 576.
" Influence of, XII., 24.
" Planting, XII., 428.
" Products, Neglected, XIII., 130.
" Question, XII., 3.
Forestry, Importance of, XIV., 569; XV., 461.
French and German Languages, XIII., 449, 450.
Fuel from Sawdust, VI., 381.
Furnace, Smokeless, VI., 25; 437.
Gas Lamps for equalizing Temperature, XI., 532.
" Relative Value of Coal for, IV., 146; 372.
Geometry, Modern Methods of, III., *p.*, 59.
" Proportion applied to, IV., 420.
George Eliot's Poems, XII., 455.
Germ Theory of Disease, and Infectiveness of Consumption, XVI., 562.
Geyser Eruptions and Terrace Formations, XVII., 454.

Miscellaneous—*continued.*

Graving Docks, I., 52 ; *n.e.*, I., 455.
Gravitational Experiments, XVII., 407.
Greenway Floating Breakwater, XVI., 551.
Guinea, New, VI., *a.*, 81.
Haast River Wreck, VII., 146, 493; VIII., 446.
Harbour and Bar of Otago, XVI., 565.
Harbours, Scientific Form of, XI., 560.
Harmonograph, XV., 530.
Harvesting Crops independent of Weather, XV., 524.
Heredity, XIII., 443.
Higher Education, III., 110.
Highest Aim of Wellington Philosophical Society, XII., 425.
High School for Girls, XI., 549.
History of English Alphabet, XVII., 469.
Hochstetter, F. v., *In Memoriam*, XVII., 458.
Honey, Decrease of, II., 411, 412.
Ice around Mont Blanc, A Day on, XIII., 441.
Imaginary Quantities, XV., 532.
Inaugural Address, I., 3; *n.e.*, I., 2.
India, Overland Route to, II., 337.
Indo-European and Maori Languages compared, III., 313.
Induction and Necessary Truth, VII., *a.*, 38.
Inductive Method applied to Theory of Descent, IX., 654.
Infant Mortality, Effects of Temperature on, V., *a.*, 35.
Inflammatory Action in Portions of Dead Animals, XIV., 113.
Influence of Forests on Climate, &c., XII., 24.
In Memoriam, F. v. Hochstetter, XVII., 458.
Insects injurious to Vegetation, V., 289.
Intercommunication, II., 331.
Irrigating an Object on a Microscope, IX., 653.
Irrigation, Sewerage, II., 214.
Islands, Excursion to, XVII., 447.
Is Life a Distinct Force? XVII., 410.
Is New Zealand Healthy, with Statistics, XV., 493.
Journey across the North Island, V., 3.
Labour and Capital, Effect of Co-operation on, III., *pp.* 66, 67.
Lamp, Electric, VII., 403.
Land, Destruction of, by Shingle-bearing Rivers, IV., 153.
„ Reclamation of Sand-devastated, V., 108, 432.
Landscape Art in Auckland, XII., 448.
Latitude, Effect of, on Ship's Compass, V., 128.
Law of Gavelkind, XVI., 518.
„ Tolerance, XVI., 558.
Lectureships, Christchurch, III., *p.*, 97.
Life, XIII., 109.
„ Beginnings of, VI., 400.
„ Germ of, from Meteors, IV., 417.
Lifeboats, VIII., 168.
Lighthouse Foundation, Ponui Passage, IV., 135.
Lime, as Manure, IX., 206; Discussion, 642.
„ Slaking with Salt Water, VIII., 429.

Miscellaneous—*continued.*

Litigant, A Successful, XVII., 455.
Longitude, Wellington, III., *p.* 82; VII., 502; VIII. 441.
Macaulay's New Zealander, XV., 542.
Magnetic Needle, Declination of, VI., 3.
Manibus Parkinsonibus Sacrum, X., 108.
Man's Place in Creation, II., 267.
Maori and Indo-European Languages compared, III., 313.
Mayor Island, Description of, XVII., 417.
Means of selecting most Durable Timber, X., 190.
Mechanism of Voice and Speech, XI., 560.
Medical Aspects of Education, XII., *a.*, 21.
Members of New Zealand Institute. (See *end of each vol.*)
Men of Science who have preceded us in these Seas and Lands, XVI., 570.
Mental Physics, X., 559.
Microscope dissecting, XIV., 561.
Mill's Fourth Fundamental Theorem respecting Capital, X., 24.
Mind and Matter, XIII., 451.
Mines, School of, III., *p.* 92, *p.* 94, *p.* 95.
Minor Triangulation, Error in, XIV., 561.
Moa, Notes on the Word, VII., *a.*, 28.
Moas (see *Aborigines*, and *Zoology* under *Birds*).
Models of Machinery working, IV., 391.
Modern Histological Methods, XIII., 452.
Moriori Canoe, IV., 354.
Mortality in Christchurch, III., *p.*, 93.
" Infant, Effect of Temperature on, V., *a.*, 35.
Mount Cook, Height of, XIV., 106.
Mountain Tramway, III., 321.
Names of Places, Origin and Meaning, XIII., 440.
Napier Museum, XVII., 464.
Nationalization of Land, XVI., 564.
Natural History Collections, Otago, III., 203.
" Theology, II., 281.
Naturalist, Work for the Field, IV., 138.
Nature of Art, II., 251.
Necessary Truth, Induction and, VII., *a.*, 38.
Neglected Forest Products, XIII., 130.
Nelson Philosophical Society, Formation of, XVI., 573.
" Sanitary Section of, XVI., 576.
New Fire-grate, IX., 672.
New River, Improvement in, XIII., 462.
New Zealand, Discovery of, III., *p.*, 65.
" Early History of, XVII., 461.
" Origin of Fauna and Flora of, XVII., 459.
New Zealand Institute, Its Relation to the Affiliated Societies, and to Scientific Work in New Zealand generally, XVII., 460.
New Zealand Institute, List of Subjects, Suggestions, Preface, I.
" " Members of (see *end of each vol.*).
" " Progress of, IV., 1.
" " Reports of Governors (see *each vol.*).

Miscellaneous—*continued.*

New Zealand Institute, Resolution regarding Constitution of, XVII., 470.
New Zealand Railways, XVI., 560.
„ Renaming, XVII, 455.
Nomenclature, XV., 542.
Non-Euclidean Geometry vindicated, XVI., 557.
North Island, Official Journey across the, V., 3.
Ocean Currents, IV., 362; VIII., 446.
Okarito, District of, XI., 386.
Organic Productions in New Zealand, Distribution of, XVI., 461.
Otago Museum, III., 203; XVII., 461.
„ Sandhills, III., *p.*, 66, 263.
Overland Route to India, II., 337.
Pacification of the World, XII., 447.
Pacific Railway, II., 338.
Paper Currency, X., 536.
Paper-making Materials, VI., 55.
Papers on New Zealand Natural History, 1878–79, XI., *a.* 27; XII., *a.* 50.
Patent Slip, Wellington, VI., 14.
Patent Slips, I., 50; *n.e.* I., 453.
Personal Reminiscences, X., 553.
Philosophical Institute of Canterbury, Early History of, XV., 536.
Photography, IV., 160; XIV., 554.
Physiological Changes in English Race when transplanted to New Zealand, IX., 37. Discussion on, 618.
Plants for Sand Wastes, VI., 45.
Poe, Edgar Allan, XIII., 438.
Political Economy of Tramways, III., *p.*, 100, 337.
Port Nicholson in 1839, XII., 32.
Postal Communication, I., 184; *n.e.*, I., 132.
Preparations by Glycerine Process, XV., 538.
Probability, VII., *a.*, 46.
Progress of Institute, IV., 1.
Proportion applied to Geometry, IV., 420.
Protection of Land from Floods, IV., 153.
Protractor, Semicircular, III., 316.
Psychic Force, IV., 421.
Psychological Investigations, XVI., 559
Rabbit Nuisance, XIV., 541.
Railways, I., 189; *n.e.* I., 139.
„ Communication between a Station and a Train, IV., 394.
„ Mechanics and Mechanical Economy of, III., *p.*, 102.
„ Pacific, II., 338.
„ Southland, III., *p.*, 34.
Reason in Lower Animals, X., 552.
Records of an Old English Borough, XVII., 467
Recreation Reserves, VI., 416.
Red Corpuscles in Blood, VII., *a.*, 31
Religion and Drama, X., 560.
Renaming New Zealand, XVII., 455

Miscellaneous—*continued.*

Reports, Council, Canterbury, II., 418.
„ Governors of Institute (see *each vol.*).
„ Manager of Institute (see *each vol.*).
Resources of Southland, XVI., 571.
Rising Generation, XI., 549.
River, I., 191; *n.e.*, I., 141.
„ Changes in Hokitika, III., 299.
„ Steamers, II., 220.
„ Systems, Wellington, II., 198.
Roads, I., 184; *n.e.*, I., 133.
Rock Pools, Contents of, IV., 219.
Rotorua District, On the Establishment of a Grand Hotel and Sanatorium in the, XVII., 427.
Ruahine Mountain, XI., 567, 570.
Salmon Acclimatization, VI., 436; VIII., 205.
Samaritan Pentateuch, Fragment of, XVI., 554.
Sand-fixing, Remarks on Mr. Travers's Paper, XV., 528.
Sand Hills, Otago, *p.*, 66, 263.
„ Wastes, Reclamation of, VI., 42, 376.
„ „ Fixing, VI., 376.
Sand-worn Stones, II., 247; III., *p.*, 93; V., 105.
Sanitary Law, XVII., 471.
„ Requirements of Colonial Towns, XIII., 84.
Sawdust Fuel, VI., 381.
School of Mines, III., *p.* 92, *p.* 94, *p.* 95.
Science, Advances in, XVI., 568.
„ and Ordinary Knowledge, XVI., 566.
„ Claims of, on Education, VII., 168.
„ What is it? VII., *a.*, 58.
Scientific Duties of the Government, XVII., 462.
„ Instruction in New Zealand, IX., 666.
„ Societies, Effect of, in New Zealand, XVII., 466.
Self-registering Windmills, XV., 545.
Semi-circular Protractor, III., 316.
Senses and Intellect, XVII., 467.
Settlement of People on Lands, XVII., 467.
Sewage Irrigation, II., 214.
Shadow of Justice, XIV., 550.
Shakespeare and Euphuism, XV., 531.
Sheep-wash, III., *p.*, 37.
Ship's Compass, Effect of Latitude on, V., 128.
Ships' Life-boats, VIII., 168.
Shore of the Unknown, XIV., 555.
Simplest Continuous Manifoldness of Two Dimensions, IX., 272; XIII., 100.
Sinking Funds, I., 65; *n.e.* I., 472; II., 236; III., 325.
Skew Arches, IX., 265.
Slaking Lime with Salt Water, VIII., 429.
Slip, Patent, I., 50; *n.e.* I., 453.
Smokeless Furnace, VI., 25, 437.
Socialism, XII., 454.

Miscellaneous—*continued.*

Spell of Supernatural, XVI., 559.
Spencer's "First Principles," XII., 454.
Spiral Markings on Trenails, XII., 447.
Spontaneity or Self-action of Will, XIII., 440.
Spontaneous Generation, Experiments bearing on, XVII., 182.
State Forestry, IX., 187, *a.* 27.
Steam-coal Experiments, IV., 151.
Steamers, River, II., 220.
Stone Epoch, Cape of Good Hope, IV., 157, 380; V., 138.
Storage of Energy by utilizing Water-power, XVI., 552.
Street Improvements, III., *p.*, 90.
Study of Politics, XI., 557.
„ Statistics, X., 550.
Submarine Boat for Gold-mining, V., 481.
„ Telegraph, Best Line for, VIII., 166.
Successful Litigant, XVII., 455.
Suez Canal, II., 332; III., *p.*, 37.
Sugar Beet, V., 485.
„ Growth of, XIII., 142.
Suitable Subjects for Papers, XIII., 447.
Sun-glows, XVII., 357.
Sunsets, Red, XVII., 386.
Surface Features of the Earth, and Local Variations in the Force of Gravity, XV., 463.
Surveys, New Zealand, VIII., *a.*, 27.
Sydney Exhibition, XII., 432.
System of Weights and Measures, X., 155.
Taieri River Floods, and their Prevention, XIV., 94.
Takiroa Caves, I., 18; *n.e.* I., 6.
"Taranaki," s.s., Raising the, II., 203.
Technical Education, X., 554; XVI., 565; XVII., 398, 457.
Telegraph, Best Line for Submarine, VIII., 166.
Telegraphic Communication, I., 182; *n.e.* I., 129.
Telegraphy, Duplex, VII., 396.
Telescope, A New, V., 119.
„ Reflecting, V., 125.
Temperature, Effect of, on Infant Mortality, V., *a.*, 35.
Terms used in Political Economy, XI., 3.
Terrace Formations, Geyser Eruptions and, XVII., 454.
Tewkesbury, X., 553.
Theology, Natural, II., 281.
Thomson's System of Survey, from a Legal Point of View, IX., 280.
Tidal Wave, X., 520; X., 522; Hector, XVI., 552.
Towns, Cleansing of, XI., 38.
Training-walls for deepening Invercargill Harbour, XV., 545.
Tramway, Mountain, Wire, III., 321.
Tramways, Indiarubber Tires, III., *p.*, 34.
„ Political Economy of, III., *p.*, 100, 337.
Tree Stump 25ft. Underground, VII., 144, 521.
Trees suitable for Road Avenues, VII., 519.
Universal Code of Signals, XII., 451.

Miscellaneous—*continued.*

University Education, II., 192; VII., 154.
" of New Zealand, History, &c., XV., 531.
Unseen Universe, XII., 454.
Use of Reservoirs, Economic Limit to, XVI., 561.
Various Subjects: Passiflora, Centipede, Artesian Wells, Weka, XIV., 554.
Vegetation, Canterbury, II., 118.
" Insects injurious to, V., 289.
Vertical Triangulation, XIV., 105.
Visionary Faculty of Mind, XV., 531.
Volcanic Disturbances in Straits of Sunda, XVII., 464.
Vowel Sounds, Origin of, I., 43, 125; *n.e.*, I., 73.
Waste River-beds, Reclamation of, XIV., 100.
Water-power, its Adaptation, III., 315.
Watershed Districts, XIII., 119.
Water-supply, Auckland, VI., 35, 40; XVI., 558.
" Christchurch, Artesian, XVI., 561.
" Economizing, IV., 141.
" Invercargill, XIV., 121.
Wellington Harbour, Improvement of, X., 528.
" Longitude, III., *p.*, 82; VII., 502; VIII., 441.
Whale Fisheries, III., *p.*, 68.
Whaling Stations, III., *p.*, 55.
White Island, III., 278.
Whitepine, New Zealand, Suitability of, when creosoted, for Sleepers, XVII, 447.
Wind-worn Stones (see *Sand*, supra).
Wool shown by Colony, Awards for, XV., 524.
Wreck, West Coast, IV., 373; VII., 146, 493; VIII., 446.

Proceedings—

Auckland Institute, I., 55; II., 404; III., 39; IV., 383; V., 441; VI., 393; VII., 513; VIII., 420; IX., 638; X., 545; XI., 547; XII., 441; XIII., 438; XIV., 546; XV., 530; XVI., 558; XVII., 451.
Canterbury Philosophical Institute, II., 417; III., 51; IV., 400; V., 459; VI., 407; VII., 527; VIII., 432; IX., 644; X., 556; XI., 553; XII., 451; XIII., 445; XIV., 557; XV., 533; XVI., 561; XVII., 457.
Hawke's Bay Philosophical Institute, VIII., 450; IX., no meeting; X., 567; XI., 567; XII., 458; XIII., 455; XIV., 564; XV., 541; XVI., 568; XVII., 464.
Nelson Association for the Promotion of Science and Industry, IV., 423; V., 484; VI., 448; VII., 557; VIII., 444.
Nelson Philosophical Society, XVI., 573.
Otago Institute, II., 425; III., 55; IV., 408; V., 469; VI., 433; VII., 539; VIII., 434; IX., 647; X., 559; XI., 556; XII., 454; XIII., 451; XIV., 561; XV., 538; XVI., 564; XVII., 460.
Southland Institute, XIII., 458; XIV., 568; XV., 545; XVI., 571 XVII., 467.

Proceedings—*continued.*

Wellington Philosophical Society, I., 23; II., 395; III., 15; IV., 353; V., 403; VI., 367; VII., 467; VIII., 403; IX., 613; X., 519; XI., 520; XII., 423; XIII., 426; XIV., 431; XV., 523; XVI., 547; XVII., 443.

Westland Institute, VIII., 446; XI., 573; XII., 457; XIII., 454; XIV., no meeting; XV., 540; XVI., 567; XVII., 463.

Zoology—

General—

Animals destructive to Fruit-trees, IX., 331.
Cartilaginous Skeletons, New Mode of preserving, XIV., 258.
Collections from Auckland and Campbell Islands, XI., 337.
Diseases among Sheep, XII., 446.
Fauna of New Zealand, XI., 556; XVII., 459.
" Otago, X., 306.
Geographical Relations, V., 246.
Hand in Different Animals, X., 561.
Introduction of Beasts of Prey, XVII., 179.
Monstrosities in Animals, XVI., 548.
Mounted Skeletons, XIV., 562.
Specimens exhibited, XIV., 565.
Zoological Researches on Chicken Island, XIV., 274.
" Specimens, XVI., 539.

Mammalia—

Ancient Dog of New Zealanders, X., 135.
Baleen Plates, VII., 266.
Balæna marginata, III., *p.*, 76, 123.
Balænidæ, II., 21; III., 123; V., 154; VII., 251, 507.
Balænoptera rostrata, XIII., 169.
Bats, IV., 184, 186, 369; VIII., 180.
Berardius arnuxii, III., *p.*, 15.
Blackfish, I., 44; *n.e.*, I. 448.
Black Rat, XI., 343.
Cetacea, IX., 477; Recent and Fossil, XIII., 434.
Cetaceans, V., 154; VI., 87, 93; VII., 251, 507.
" *Balænidæ* (see *supra*).
" *Macleayius australiensis*, VI., 90.
" *Mesoplodon hectori*, VI., 86.
Delphinidæ, IX., 349.
Dog, Remains found near Whitecliffs, IX., 243.
Dolphins, V., 154; VI., 87; VIII., 180; XVII., 207.
Epiodon novæ-zealandiæ, IX., 430.
Fin-whale, Notes on Skeleton and Baleen of, XVII., 3.
Grampus, *Phocena orca*, VI., 435.
Kogia breviceps, XII., 438; Calf of, XVI., 549.
Maori Rat, IX., 348; X., 288; IX., 639; XVI., 553.
Megaptera lalandii, XV., 214.
Mesoplodon floweri, IX., 422.
Neobalæna marginata, XII., 438.
Oulodon, IX., 450.

Zoology—*continued.*

MAMMALIA—*continued.*

Polecat, Proposed Introduction, IX., 634.
Rats, III., *p.* 24, *p.* 47; III., 1; IV., 183.
„ Plague of, in Nelson and Marlborough, XVII., 199.
Saurian Remains, II., 186
Seals, II., 28, 33; IV., 196, 199, 415; VI., 87.
Tooth of Cetacean, III., 130.
Tursio metis, VIII., 180.
Whales, II., 190; III., *p.*, 76, 123, 125; V., 154; VI., 86, 87, 93; VII., 251, 507; X., 331.
Whaling Stations and Fisheries, III., *p.* 55, *p.* 68.
Wild Pig, Duplication of Tusks in, XI., 535.
Ziphidæ, II., 190; III., *p.*, 25, 125, 128; VI., 86.
Ziphius novæ-zealandiæ, XII., 241.

ORNITHOLOGY—

Additional Species, &c., XI., 361.
Additions to Museum, VII., 224; XIII., 235.
Æpyornis, IV., 363.
Albatross, its Flight, I., 58; *n.e.* I., 465; II., 227; III., *p.*, 47; IV., 347.
Alca impennis, III., 109.
Anas gracilis, XII., 271.
Anatidæ, IV., 213, 415.
Antarctic Petrel (*Priocella antarctica*), IX., 464.
Apteryx, n.s., IV., 204.
„ *mantelli*, VIII., 409.
„ *oweni*, VIII., 193.
Ardetta maculata, VI., 119.
Australian Birds, Musical Tones in Notes of, XII., 451.
„ Roller, XIV., 265.
„ Tree Swallow (*Hylochelidon nigricans*), XI., 360.
Birds in Colonial Museum, Additions to, VII., 224; XIII., 235.
„ of Paradise exhibited, XIII., 439.
„ of Petane District, XVII., 464.
„ of Macquarie Island, XIV., 561.
„ presented to Museum, XIV., 534.
„ Protection of Native, XVII., 469, 471.
Bittern, n.s., III., *p.*, 99.
Blight Bird, III., *p.*, 79, 15.
Chatham Islands, V., 212; VII., 511.
Cnemiornis calcitrans, VI., 76.
Colluricincla concinna, V., 226.
Critique, Buller, I., 105; *n.e.* I., 49; VIII., 194.
„ Finsch, I., 112; *n.e.* I., 58.
Crossing of *Ocydromus earli* and Domestic Fowl, IX., 341.
Curious New Zealand Birds, XII., 248.
„ Specimen, VIII., 196.
Curlew (*Numenius cyanops*), IX., 427.
Deformity in Bill of *Nestor meridionalis*, IX., 340.
Dinornis (see also *Moa*).
„ Different Species, I., 82; *n.e.* I., 21.

Zoology—*continued.*
Ornithology—*continued.*
Dinornithidæ, VI., 426.
Disputed Species, VII., 211.
Distribution of Birds within New Zealand Sub-region, XV., 178.
Earnscleugh Cave, Dinornis Remains, V., 102.
Eastern Golden Plover *(Charadrius fulvus)* near Wellington, XVII., 59.
Eudyptes schlegeli, X., 560.
Fossil Penguin, II., 403.
Geographical Relations, New Zealand Fauna, V., 227.
Gerygone flaviventris, VII., 524; VIII., 190.
Golden Plover (*Charadrius fulvus*), Breeding Habits of, XVI., 308.
" " in Auckland, XIV., 264.
Great Barrier Island, I., 62, 160, 162; *n.e.* I., 104, 106, 469.
Habits of Birds, IV., 206, 372.
Harpagornis, XIII., 232.
" *assimilis*, VI., 69.
" *moorei*, IV., 192; VI., 62.
Hawk, Extinct, V., 435.
Hieracideæ, VII., 213.
" *novæ-zealandiæ* and *H. brunnea*, XVI., 318.
Himantopus, VII., 220.
Hokioi (Extinct Hawk), V., 435.
Huia (*Heteralocha gouldi*), III., *p.*, 80, 24; V., 431; VIII., 192, 204.
Huia (*Heteralocha acutirostris*), Egg of, X., 211.
Hybrid, A Supposed, V., 480.
" Ducks, XVII., 465.
Kea, XI., 376; XVII., 449.
Kiwi, III., *p.*, 73; IV., 388; V., 482.
" New, XVI., 576.
Kokako, Abnormal Colour, XIV., 544.
Korimako (*Anthornis melanura*), Disappearance of, X., 209.
Larus dominicanus, V., 140.
Lestris, XI., 355.
Lists of Birds, I., 122; *n.e.* I., 70; II., 49; III., 60; V., 171.
Long-tailed Cuckoo (*Eudynamis taitensis*), XI., 353.
Malau, Notes on a Bird called, XVII., 452.
Megapodius, III., 14; IV., 165.
Moa, Association with the, I., 19.
" Beds, V., 94.
" Bones, I., 37; *n.e.* I., 441; I., 80; *n.e.* I., 21; VII., 274; VIII., 94; IX., 365; XIV., 410.
" Caves, V., 102; VII., 54, 141, 528, 531, 534, 542; VIII., 97.
" Chick, II., 395.
" Classification, Von Haast, IX., 363.
" Different Species, I., 82; *n.e.* I., 21.
" (*Dinornis*), I., 18; *n.e.* I., 6; XI., 568; XII., 63; XIV., 540.
" Discoveries, I., 18; *n.e.* I., 5.
" Egg, I., 20; *n.e.* I., 7; II., 395; IV., 110, 166, 363.
" Egg-shell, Analysis of, XIII., 225.

Zoology—*continued.*

Ornithology—*continued.*

Moa, Extinction of the, VIII., 58, 102.
" Feathers, IV., 166, 172, 379; VI., 387; XII., 439.
" Footprints, IV., 124.
" Hunters, IV., 66, 107, 110, 399; V., 412; VII., 91, 98, 493; VIII., 83.
" Neck, IV., 114, 363, 378; VI., 387; VII., 141.
" Remains, IV., 110, 120; V., 97, 438; VII., 123, 138, 266, 544, 548; VIII., 83, 95, 427; IX., 279; X., 552; XI., 574; XV., 526; XVI., 571; XVII., 172.
" Review of a Paper on, by M. de Quatrefages, XVII., 448.
" Swamp, Hamilton, VII., 123, 544.
" Traditions, VII., 121, 496.
New Birds, II., 78; XIII., 454.
New Zealand Birds, I., Essay (Buller); *n.e.* I., 213; II., 40; III., *p.* 25, 48, 57, 59, 111; V., 171, 206, 225; VI., 139; VII., 197, 226; VIII., 181, 200, 408; IX., 327; X., 191, 201; XI., 366; XII., 439; XVII., 60; XVIII., 187, 450, 465.
New Zealand Birds, Habits of, VI., 206, 372; Lists, II., 49; III., 60; V., 171; VI., 137.
New Zealand Fauna, Geographical Relations of, V., 227.
Notornis, XIV., 238; XIV., 245, 561, 562.
Notes on Buller's Birds, VI., 126.
" Hutton's Notes, VI., 123.
" Taylor's New Zealand, III., 11.
Observations on Birds, during a Voyage to England, VIII., 199.
Ocydromus, VI., 110; X., 213.
Orange-wattled Crow, Nesting Habit of, XII., 249.
" " of New Zealand, IX., 327; X., 191, 201; XI., 366; XII., 439.
Ornithology (see *New Zealand Birds, supra*).
Palapteryx ingens, I., 84; *n.e.* I., 25.
Pea-hen, XIII., 452.
Penguin, Fossil, II., 403.
Petane District, Birds of, XVII., 464.
Phalacrocorax carunculatus, XI., 332.
Pheasants, Introduction of, Auckland, II., 80.
Platycercus unicolor, VI., 121; n.s., VII., 219.
Plotus novæ-hollandiæ, VII., 217.
Podiceps cristatus, III., *p.*, 25, 113.
Prion banksii, XI., 351.
Procellaria affinis, VII., 215.
Puffinus amaurosma, IV., 369.
Rallidæ, n.s., VI., 108.
Rallus modestus, VII., 511.
" *pictus*, IV., 202.
Rare Birds, XVI., 308.
Red-capped Dotterel (*Hiaticula ruficapilla*), XII., 216.
Red Phalarope (*Phalaropus fulicarius*), XVI., 279.
Red-tailed Tropic Bird (*Phaëton rubricauda*), X., 219.
Rock-hopper (*Pygoscelis tæniata*), XIII., 452.

Zoology—*continued.*

Ornithology—*continud.*

Royal Spoonbill (*Platalea regia*), IX., 337.
Saunders's Review of Larinæ, XI., 359.
Shag from Queen Charlotte Sound, IX., 338.
Shy Albatross (*Diomedea cauta*), X., 217.
Small Birds, Disappearance of, X., 239.
" Question, XVI., 561.
Snipe, III., *p.*, 86.
Species disputed, VII., 211.
Sterna alba, VII., 214.
Sumner Cave, VII., 54, 528, 531, 534.
Swan Skeleton, III., *p.*, 100.
Variations of Colour, Curious, in some New Zealand Birds, XVII., 60.
Zosterops lateralis, III., *p.*, 79, 15.

Amphibia and Reptilia—

American Horned Frog, XII., 448.
Geographical Relations, V., 239.
Lizards, III., *p.*, 77, 4, 56; IV., 167; VII., 295.
" *Naultinus greyii*, II., 20.
" " *pacificus*, V., 307, 403.
" " *n.s.*, IX., 326; XII., 314; XIII., 419; XVII., 149.
" " Economy and Habits of, XII., 251.
New Zealand Frog, II., 87; XII., 250.
Tadpole in Drain at Hokitika, XI., 573.
Tuatara Lizard (*Sphenodon*), II., 17; IV., 388; IX., 317; X., 220, 349; XIV., 561. Physiology and Anatomy of, X., 222.

Ichthyology.

Albino Eel, IV., 378.
Bovichthys, V., 480.
Brown Trout, XI., 271; XVI., 467.
Californian Salmon, XIV., 545.
Callorhynchus, III., *p.*, 35; XI., 298.
" *antarcticus*, Embryos of, XVI., 564.
"Challenger" Expedition, VII., 490.
Cheimarrichthys fosteri, VI., 103.
Coriododax pullus, III., *p.*, 77, 130.
Coryphænoides, III., *p.*, 76, 136.
Ctenolabrus knoxi, V., 308, 265.
Dajus forsteri and *Retropinna osmeroides* in Hutt River, XV., 527.
Diseased Trout in Lake Wakatipu, XV., 198.
Dunedin Fish-supply, X., 324; XI., 380.
Eels, Absence of, from Waiau-ua River, III., *p.*, 83, 120.
" Access to the Sea, VIII., 221.
" Albino, IV., 378.
Effect of Cold on Fishes, XVI., 275.
Euphysetes pottsii, VI., 97.
Fish and their Seasons, IX., 484.
Fish-culture in New Zealand, XIII., 453; XIV., 180.

Zoology—*continued.*

Ichthyology—*continued.*

Fishes, new, X., 243; XI., 291, 295; XI., 297; XII., 308; XII., 455; XIII., 194.
Fishes of Wanganui River, XII., 315.
Frost Fish, VIII., 218.
Gallus, I., 44; *n.e.*, I., 447.
Geographical Relations, V., 240.
Histiophorus, II., 14.
Ichthyology of New Zealand, IX., 355; IX., 465; XVI., 322.
Kanae, Anatomy of, IV., 189.
Kelp Fish, III., *p.* 77, 130.
Lamna cornubica (Mako), VII., 237.
Lepidopus caudatus, VIII., 218.
Lepidosiren and other Fishes, XII., 448.
Leptocephalus longirostris, VII., 238.
Motella novæ-zelandiæ, n.s., VI., 107.
Mud Fish, II., 402; V., 456.
Mugilidæ, IV., 189.
Mustelus antarcticus, Anatomy, XV., 219; II., 84; VI., 104; VIII., 209.
Neochanna apoda, II., 402; V., 456.
New Zealand Fishes, II., 84; VI., 104; VIII., 209; IX., 469; XIII., 436.
New Zealand Fishes, Contributions to, V., 259.
" " Notes on, VII., 239; XVII., 160.
" " Undescribed, V., 272.
" Grayling (*Prototroctes oxyrhynchus*), X., 250.
" Sprat, XV., 203.
Oar Fish, I., 44; *n.e.*, I., 447.
Ophisurus, II., 34.
Picton Herring, XV., 238.
Porbeagle Shark, VII., 237; XVI., 565.
Red Cod (*Lotella bacchus*), XV., 234.
Regalecus pacificus, IX., 646; X., 246; X., 533.
" Anatomy of, XI., 269.
Ribbon Fish (*Regalecus argenteus*), XVI., 284.
Salmon Acclimatization, VI., 436; VIII., 205.
" Ova, Transport of, IX., 653.
" Trout, XIV., 211.
Salmonidæ, Migratory, III., *p.*, 26, 133; XIII., 175.
Scopelus, III., *p.*, 27.
Scymnus lichia, Anatomy of, XV., 222.
Shark, VII., 237.
Skate (*Raja nasuta*), Anatomy, XIII., 413.
Spinous Shark (*Echinorhinus spinosus*), XVI., 280.
Stenorhynchus, II., 28, 33.
Stingaree (*Trygon thalassia*), XIII., 426.
Sword Fish, I., 44; *n.e.*, I., 447; II., 13; VIII., 219.
Torpedo (*T. fusca*), XVI., 281.
Trachypterus, XIII., 195.
Trout caught at Wanganui, XV., 528.

Zoology—*continued.*
Ichthyology—*continued.*
Trout, Introduction of, IV., 379.
West Coast Fishes, VII., 239.
Xiphias gladius, II., 13; VIII., 219.
Mollusca—
Æolis, new, XV., 217.
Aplysia, n.s., VII., 279.
Auckland Harbour, VIII., 304; List, 309.
Bitentaculate Slugs, XIV, 158.
Branchiate Mollusca, XIV., 162.
Cephalopoda, n.s., XIV., 283; XVI., 549.
Chitonidæ, I., 34; *n.e.*, I., 437; IV., 173.
Comparison of South Australian and New Zealand Marine Mollusca, VJJ., 549.
Conchology, X., 293.
" of Great Omaha, V., 363; Lists, 367, 369.
Cuttlefish, III., *p.*, 75.
" Giant, XVII., 465.
Fresh-water Lamellibranchs, XIV., 148.
" Shells, I., 60; *n.e.*, I., 467.
Gasteropoda, XV., 118.
Geographical Relations, V., 243.
Giant Cuttlefish, XII., 310. (See also *Cephalopoda.*)
Helix hochstetteri, III., *p.*, 110.
Imperator davisii, IV., 218.
Land Shells, I., 60; *n.e.*, I., 467; XV., 134; XVI., 161, 186.
Limnæidæ, Freshwater Shells of New Zealand belonging to the Family of, XVII., 54.
Malacology, Contribution to New Zealand, XIII., 200.
Marine Mollusca, XVI., 212.
" " Comparison of South Australian and New Zealand, VII., 549.
" " Influence of Climate on Geographical Distribution of, IX., 665.
" " of Wellington, XII., 303.
Mollusca from Auckland, X., 551, 553.
Molluscan Fauna, XV., 131.
Molluscoida, V., 245.
" New Zealand, List of, VI., 158, 439.
Mytilus latus, Anatomy of, XVII., 461.
New *Aplysia*, XII., 270.
" Marine Shells, XII., 306; XIV., 268, 282.
" Slugs, XI., 331.
New Zealand *Hydrobiinæ*, XIV., 143.
" Mollusca, XIV., 169.
" *Rissoinæ*, XIV., 147.
" Shells, XIV., 168.
" Shells, in "Voyage au Pôle Sud," X., 557.
Nudibranchiate Mollusca, XIII., 222; XIV., 213.
Octopus, New, XVI., 576; XVII., 198.
Ommastrephes sloanii, XVII., 465.

Zoology—*continued.*

Mollusca—*continued.*
Opisthobranchiate Mollusca, XI., 378; XIII., 224.
Paper Nautilus (*Argonauta gracilis*), n.s., XVII., 58.
Polyzoa, IX., 358.
Pulmonate Mollusca, XIV., 150.
Rachiglossate Mollusca, XVI., 216.
Sea Mussel (*Mytilus latus*), Anatomy of, XVII., 461.
Sepioteuthis bilineata, Anatomy, XVI., 145.
Siphonariidæ, XV., 141.
Struthiolaria papulosa, XV., 117.
Vitrina milligani, XII., 307.

Entomology (General)—
"Chermes" or "Kermes," Observations on the Name, XVII., 13.
Entomology of New Zealand, IX., 355; XII., 272.
Flesh Fly, III., *p.*, 83, 116.
Insect Architecture, IX., 343.
Insecta, Exhibition of, XIII., 456; XIV., 564.
Insects Injurious to the Kauri Pine, IX., 366.
" n.s.
Peculiar Insects, XIII., 457.

Hemiptera—
Aphidian Insect infecting Pine Trees, XVII., 13.
Coccidæ of New Zealand, XI., 187; XII., 291; XIV., 215; XVI., 120; XVII., 20.
Parasite on New Zealand *Coccidæ*, XI., 228.
Scale Blight, XIV., 549, 559. (See also *Coccidæ*.)

Orthoptera—
Deinacrida, III., *p.*, 81, 34.
Mantis in New Zealand, XVI., 113.
Orthoptera of New Zealand, XIII., 448; XIV., 277.

Diptera—
Diptera, XII., 454.
New Dipterous Insect, XV., 218.

Lepidoptera—
Butterflies of New Zealand, X., 263.
Butterfly, n.s. (*Satyrinæ*), XII., 264; XV., 193.
Catocala, IX., 457.
Charagia virescens, XI., 347.
Chlenias, XII., 267.
Chrysophanus, IX., 460; X., 252.
Cidaria, XVI., 119.
Danais berenice, X., 276, 305; n.s., VI., 183.
Dasypodia selenophora, XI., 300.
Diadema bolina, IX., 463.
Diurnal Moths, XIII., 237.
English Butterflies in Wellington, XVI., 550.
Geometrina, XVI., 49; X., 62.
Heteropterous Lepidoptera, XV., 195.
Lepidoptera, IX., 459; List of, VI., 171.
Leucanidæ, XII., 267.
Micro-Lepidoptera, XV., 3; XVI., 1; XVII., 68, 121, 141.

Zoology—*continued.*

Lepidoptera—*continued.*
Ophideres, XV., 192.
Oreina othello, VIII., 302.
Otago, III., *p.*, 55, 137; IV., 214.
Percnodaimon pluto, Neuration of Wings, XV., 197.
Porina mairi, V., 279.
Psychidæ, X., 260.
Vegetating Caterpillar, XVII., 464.

Neuroptera, VI., *a.*, 90.

Hymenoptera—
Ants, XIV., 569.
Hymenoptera of New Zealand, XIII., 447.

Coleoptera—
Anobiidæ, XI., 548.
Anthribidæ, IX., 375; X., 547.
Aphodiadæ, X., 553.
Carabidæ, XIV., 549; XVI., 559.
Cerambycidæ, XIV., 554.
Ceratognathus irroratus, XIII., 230.
Cincindela, IX., 374.
Colydiidæ, IX., 390.
Coleoptera, I., 29; *n.e.* I., 432; n.s., VI., 155; VIII., 262; List, VIII., 271; IX., 371; X., 550, 551, 552, 553; XIV., 549; XV., 531; XVI., 559; IX., 402; XIV., 277; n.s., XVII., 454.
Cossonidæ, XI., 547; XIV., 554.
Curculionidæ, X., 555; XIV., 551; XV., 531.
Dascillidæ, XI., 549; XIV., 550.
Dermestes lardarius, VI., 153.
" Canterbury, V., 294.
Feroniidæ, XVII., 452.
Geodephaga, VII., 297; XV., 530.
Heteromera, VIII., 282; X., 555; XV., 530.
Histeridæ, XI., 547.
Lasiorhynchus barbicornis, XIII., 228.
Longicorna, VII., 315.
Pericoptus truncatus, XII., 288.
Phoracantha, VI., 153.
Prionoplus reticularis, XII., 284.
Pselaphidæ, VIII., 271; XV., 530; XVII., 453.
Sagola, XVI., 558.
Silphidæ, XVI., 558.
Telephoridæ, XI., 549.

Myriapoda and Arachnida—
Arachnida, XIII., 456.
Arachnidea, Protective Resemblances, XV., 174.
Arachnids, n.s., XV., 165.
Araneæ, Instructions for Study of, VI., 187.
" Katipo, II., 81; III., *p.*, 80, 29, 56.
" Katipo *(Latrodectes katipo)*, XI., 391; XV., 523.
" Red Spider, VI., 380.

Zoology—*continued.*

Myriapoda and Arachnida—*continued.*

Araneæ, Salticus, V., 280.
" *Territelariæ*, VIII., 223.
Cicada, V., 286.
Marine Mites, XV., 190.
Marine Spider, X., 299; *Disis robsoni*, XI., 263; XIV., 557.
Myriapoda, X., 288.
Parasite of the Penguin, XVII., 19.
Spiders of New Zealand, XVII., 31.
Trapdoor Spider, Cambridge, X., 281.
" " nests, X., 301.

Crustacea—

Astacoides and *Paranephrops*, IX., 475.
Astacus fluviatilis and *Paranephrops setosus*, XV., 150.
Cirripedia, XI., 328.
Copepoda, XV., 93.
Crabs, XI., 557.
Crustacea, IX., 472; XI., 230, 249, 250; XIII., 204; XIV., 230; XVI., 234; T. W. Kirk, XI., 392, 401; XIII., 236; XIV., 171, 174; XV., 69, 87; XVI., 249.
Daphnia, XVI., 240.
Entomostraca, XI., 251.
Isopodan Fauna, XV., 145.
Isopods, n.s., XV., 188.
Palinurus, n.s., XII., 313.
" *edwardsii*, VII., 279.
" Structure of Head, XVI., 297.
Phronima novæ-zelandiæ, VII., 294.
Pycnogonida, XVI., 242.
Sesarma pentagona, VII., 279.

Annelida—

Aphroditæ, XI., 397.
Earthworms, IX., 350.
" Habits of, XVI., 266.
Lung-worm in Sheep, XIV., 269.
Planarians, n.s., XIV., 267; XV., 213.
Worms, XI., 314; XII., 277.

Echinodermata—

Echinodermata, IX., 362; XI., 305; XII., 278, XVII., 465.

Cœlenterata—

Cœlenterate Fauna of New Zealand, XII., 274.
Discomedusæ, XIV., 562.
Hydroidea, VII., 281; VIII., 298.
New Millepore, XI., 345.
Sea Anemones, VII., 280; XI., 308.
Sertularians, V., 256.
" in Wellington, XIV., 544.

Protozoa—

Infusorian Parasite on Patella, XI., 330.
Melicerta ringens, XII., 308.
New Zealand Sponges, XIV., 545; XV., 542.
Protozoa, Observations on, XVII., 469.

INDEX OF AUTHORS.

A.

Abraham, Right Rev. C. J.,
English Vowel Sounds, I., 125; *n.e.* I., 73.

Adams, C. W.,
Calculation of Distances by Means of Reciprocal Vertical Angles, XI., 132.
Mount Cook, Height of, XII., 452; XIV., 106.
Musical Tones in Notes of Australian Birds, XII., 451.
Suitable Subjects for Papers, XIII., 447.
Universal Code of Signals, XII., 451.
Vertical Triangulation, XIV., 105.

Adams, F.,
Sericulture, XIII., 450.

Adams, J., B.A.,
Æolus vinctus, XI., 547.
Botany of Thames Goldfields, XVI., 385.
Education, VII., 175.
Elements of Mathematics, IX., 304.
High Schools for Girls, XI., 549.
Mound-builders of North America, XII., 447.
Polynesia, IX., 44.
Te Aroha Mountain, On the Botany of, XVII., 275.
Tewkesbury, X., 553.

Agardh, Professor,
Algæ, Chatham Islands, III., 213.
Deep-sea Fishing, III., *p.*, 53.

Agassiz, Professor,
Letter *re* Diploma of Membership, IV., 377.

Aitken, A. W.,
New Zealand Frog, II., 87.

Armstrong, J. B.,
Corallospartium, XIII., 333.
Flora of Canterbury, XII., 325.
Indigenous Grasses, IV., 301.
Morel (*Morchella esculenta*) in New Zealand, XIII., 343.
New Zealand Ferns, Natural Arrangement of, XIII., 359.
" Plants, New and Rare, XIII., 335.
" " New, XIV., 359.
Red Clover, Fertilization of, XVI., 561.
Veronica, Synopsis of New Zealand Species and New Species, XIII. 344.

Armstrong, J. F.,
Indigenous Grasses, IV., 301.
Naturalized Plants, Canterbury, IV., 284.
New Zealand Plants, n.s., IV., 290.
Arthur, W., C.E.,
Brown Trout introduced into Otago, XI., 271; XVI., 467.
Diseased Trout in Lake Wakatipu, XV., 198.
Fish-culture in New Zealand, XIII., 453; XIV., 180.
Migratory *Salmonidæ*, XIII., 175.
New Zealand Fishes, Notes on, XVII., 160.
" Sprat, XV., 203.
Picton Herring, XV., 208.
Skew Arches, IX., 265.
Taieri River Floods and their Prevention, XIV., 94.
Atkins, W.,
Growth of Trees on Clay Soils, XII., 447.

B.

Baber, J., C.E.,
Drainage, II., 213.
" Remuera Swamp, II., 219.
Native Trees, their Growth, V., 451.
Various Subjects, Notes on, XIV., 554.
Baker, Rev. S. W.,
Notes on a Bird called Malau, XVII., 452.
Baines, A. C.,
Influence of Earth's Rotation on Rivers, X., 92.
Bakewell, R. H., M.D., F.R.M.C.S. Lond.,
Consumption in Otago, Cause of, VII., 543.
Corpuscles in Blood, VII., *a.*, 31.
Germ Theory of Diseases, XVI., 562.
Inflammatory Action in Dead Animal Bodies, XIV., 113.
Is Life a Distinct Force? XVII., 410.
Balfour, D. P.,
Bones of Mammal from Glenross, XV., 542.
Barff, E.,
Change in the Apex of Mount Cook, VI., 379.
Barkas, F.,
Hot Winds of Canterbury, XVI., 562.
Barr, G. M., C.E.,
Floods in the Taieri, V., 3.
Lower Harbour and Bar of Otago, XVI., 565.
Railways, III., *a.*, 102.
Barstow, R. C.,
Address, Auckland, X., 545.
Earliest Settlers, XV., 421.
Exodus of Israel, XIII., 441.
Mahori or Maori Migrations, IX., 229.
Maori Canoe, XI., 71.
Batchelor, T. C.,
Sericulture, III., *a.*, 106; IV., 424.

Bates, H. W., F.L.S.,
Coleoptera, VII., 297, 315. Heteromera, VIII., 282.
Bates, Rev. J.,
Names of Places, their Origin and Meaning, XIII., 440.
Bathgate, A.,
Lepidoptera, Otago, III., 137.
Beal, L. O.,
Alluvial Deposits, Otago, III., 270.
Beddnal, W.,
Mollusca, VII., 549.
Beetham, G., M.H.R.,
Mount Ruapehu, Two Journeys to Summit of, XII., 423.
Berggren, Dr.,
Algæ, VII., 369 (*vide* 404).
Azolla rubra, Development of, X., 522.
New New Zealand Plants, XIII., 290.
Bickerton, A. W., F.C.S.,
Birth of Nebulæ, XII., 197.
Causes tending to alter Eccentricity of Planetary Orbits, XIII., 149.
Electric Lamp, VII., 403.
Genesis of Worlds and Systems, XII., 187.
New Thermometer, VII., 152.
Origin of Solar System, XIII., 154.
" Double Stars, XIII., 160.
Partial Impact, XI., 125; XII., 175, 181; XIII., 448.
Probability of Impact, XIII., 166.
Refrigeration, XIV., 394.
Scientific Instruction in New Zealand, IX., 666.
Simple Method of illustrating the Motions of the Earth, XIII., 164.
Temporary and Variable Stars, XI., 118.
University Education, VII., 154.
Black, G.,
Deposit in Shaft of Pumping Association, X., 456.
Black, Prof.,
The Earth a Cinder, X., 559.
Blair, W. N., C.E.,
Address, Otago, XI., 561.
Building-materials of Otago, VIII., 123; IX., 108, 134.
Technical Education, XVII., 457.
Blyth, W. H.,
On renaming New Zealand, XVII., 455.
Blundell, H.,
Grasses and Fodder Plants—Remarks on Dr. Curl's Paper, XI., 528.
Booth, B. S.,
American Horned Frog (*Phrynosoma*), XII., 448.
Moa-bones at Hamilton, IX., 365.
Moa Swamp, Hamilton, VII., 123.
Bowen, Sir G. F., G.C.M.G.,
Address, I., 3; *n.e.* I., 1; II., 3; III., *p.*, 1.; IV., 1; V., 1.
Bray, W. B.,
Ocean Currents, Temperature, &c., III., 322.

Brent, D.,
Geometry, III., *p.*, 59.
Broun, Captain T., M.E.S.,
Anobiidæ, XI., 548.
Anthribidæ, X., 547.
Aphodiadæ, X., 553.
Carabidæ, XIV., 549; XVI., 559.
Cerambycidæ, XIV., 545.
Ceratognathus irroratus, XIII., 230.
Cicindela, IX., 374.
Coleoptera, n.s., VIII., 262, 271; IX., 371; X., 550, 551, 552, 553; XIV., 549; XV., 531; XVI., 559; XVII., 454.
Cossonidæ, XI., 547; XIV., 554.
Curculionidæ, X., 555; XIV., 551; XV., 531.
Dascyllidæ, XI., 549; XIV., 550.
Feroniidæ, A Decade of New, XVII., 452.
Geodephaga, XV., 530.
Heteromera, X., 555; XV., 530.
Histeridæ, XI., 547.
Insects Injurious to Kauri Pine, IX., 366.
Lasiorhynchus barbicornis, XIII., 228.
Pericoptus truncatus, XII., 228.
Prionoplus reticularis, XII., 284.
Pselaphidæ, XV., 530; n.s., XVII., 453.
Sagola, XVI., 558.
Silphidæ, XVI., 558.
Telephoridæ, XI., 549.
Brown, Dominick,
What should be the Highest Aim of the Wellington Philosophical Society? XII., 425.
Brown, Prof. Mainwaring,
Technical Education, XVI., 565.
Brown, Robert,
New Composite Plant, XV., 259.
„ Rosaceous Plant, XVI., 382.
Brown, W. R. E.,
Draining of Towns, IX., 260.
Buchanan, J., F.L.S.,
Additions to New Zealand Flora, XV., 339.
Alpine Flora of New Zealand, XIV., 342.
„ Plants of Otago, XIII., 434.
Botanical Notes, XVI., 397.
Botany, II., 88.
„ of Kawau Island, IX., 503.
„ Miramar Peninsula, V., 349.
„ Otago, part 3, I., 22; I., 181, *n.e.*
Campbell Island and its Flora, XVI., 398.
Celmisia, XI., 427.
Charring Timber as a protection from Teredo, IX., 183.
Erigeron, n.s., XVII., 287.
Flora, Wellington, VI., 210.
Gnaphalium (*Helichrysum*) *fasciculatum*, IX., 529.

Buchanan, J., F.L.S.—*continued.*
Lichens, VI., 235.
Marattia fraxinea, IX., 527.
Matai Timber, Durability of, IX., 182.
New Plants, III., 208; VI., 241; XIV., 356; XVI., 394.
New Zealand Plants, Notes on, IV., 224; Senecio, n.s., V., 348; XII., 380.
Panax, IX., 529.
Plants, North District of Auckland, II., 239.
„ and Ferns, Chatham Islands, VII., 333.
Pseudo-Scab and Lung-worm in Sheep, XIV., 269.
Selecting most durable Timber, X., 190.
Senecio perdicioides, IX., 630.
Timber, Durability of, VI., 390.

Buller, Percy,
Diurnal Moths, XIII., 237.

Buller, W. L., F.R.S., &c.,
Additional Species and Rare Occurrences since Publication of "Birds of New Zealand," XI., 361.
Address, VIII., 403; XVII., 443.
Australian Tree-swallow (*Hylochelidon nigricans*) in New Zealand, XI., 360.
Critique on Hutton's Notes on Certain Birds, VI., 123.
„ Dr. Finsch's Paper, VII., 211; VIII., 194.
Deformity in Bill of *Nestor meridionalis*, IX., 340.
Deinacrida (Weta), III., 34.
Huia (*Heteralocha acutirostris*), III., 24; X., 211. Egg of, X., 212.
Insect Architecture: Black Spider-wasp of New Zealand, IX., 343.
Katipo, III., 29.
Korimako (*Anthornis melanura*), Disappearance of, X., 209.
Larinæ or Gulls, Note on Saunders's Review of, XI., 359.
Lestris inhabiting our Seas, XI., 355.
Lizards, III., 4.
Long-tailed Cuckoo (*Eudynamis taitensis*), XI., 353.
Megapodius, III., 14.
Mus novæ-zelandiæ, III., *p.*, 24.
Naultinus, New Species of, XII., 314; XIII., 419; *N. pulcherrimus*, IX., 326.
New Skins (Birds) presented to Colonial Museum, XIV., 534.
New Zealand Birds, Remarks on, XVII., 450.
Notes on Finsch's Critique on his Essay on Ornithology, I., 105; *n.e.*; I., 49.
Notornis, XIV., 238.
Ocydromus and Domestic Fowl, Intercrossing of, IX., 341.
„ Species forming the Genus, X., 213.
Ornithological Notes on Taylor's "New Zealand," III., 11.
Ornithology of New Zealand, I., after Part 3; *n.e.* I., 213; II., 385; III., 15, 24, 37; VI., 112; VII., 197; VIII., 181; IX., 327; X., 191, 201; XI., 366; XII., 439.
Polecat, On proposed Introduction of, IX., 634.
Porina mairi, V., 279.
Prion banksii, Specific Value of, XI., 351.

Buller, W. L., F.R.S.—*continued.*
Rare Species of New Zealand Birds, XVI., 308.
Red-tailed Tropic Bird (*Phaëton rubricauda*), Addition of, to Avifauna of New Zealand, X., 219.
Reply to Hutton's Notes, VI., 126.
Royal Spoonbill (*Platalea regia*), Occurrence of, in New Zealand, IX., 337.
Shag inhabiting Queen Charlotte Sound, IX., 338.
Shy Albatross (*Diomedea cauta*), Occurrence of, in New Zealand, X., 217.
Tuatara (*Sphenodon punctatum*): Description of Supposed New Species, IX., 317; XI., 349.
Tuatara, New Variety of, from East Cape, X., 220.
Butler, A. G., F.L.S., &c.,
Butterflies of New Zealand, X., 263.

C.

Cambridge, Rev. O. P., C.M.Z.S.,
Araneidea, VI., 187.
Trap-door Spider from New Zealand, X., 281.
Cameron, A. Mackenzie,
Rock-paintings in the Weka Pass, XI., 154.
Campbell, J. L., M.D.,
Personal Reminiscences, X., 553.
Campbell, W. D., F.G.S.,
Beach Protection, XI., 146.
Boomerang, Origin of, XV., 459.
Crystalline Rocks, XIV., 450.
Draining of Towns, IX., 29.
Moa-bones near Marsden, XI., 574.
New Fish, XI., 297.
Orange-wattled Crow, Nesting Habits of, XII., 249.
Pseudomorphous Form of Gold, XIV., 457.
Psychological Investigations, XVI., 559.
Carruthers, John, M.I.C.E.,
Mill's Fourth Fundamental Theorem respecting Capital, X., 24.
Political Economy, Terms used in, XI., 3.
Shingle-beaches, Formation of Detached, X., 475.
System of Weights and Measures, X., 155.
Volcanic Action in reference to the Earth's Rotation, VIII., 352.
Chapman, F. R.,
Moa Remains in the Mackenzie Country and other Localities, XVII., 172.
Nationalization of Land, XVI., 564.
Chapman, Mr. Justice,
Address, V., 470.
Railways, Political Economy of, III., 337.
Chapman, Martin,
Presidential Address, Wellington, XIII., 426–433.
Solar and Stellar Heat, Permanency of, XIII., 97.
Triple Meteor, XV., 524.

Cherril, N. R.,
Partial Impact, Criticisms on, XIII., 449.
Cheeseman, T. F., F.L.S.,
Acianthus and *Cyrtostilis*, Fertilization of the, VII., 349.
Australian Roller (*Eurystomus pacificus*), Occurrence of, in New Zealand, XIV., 265.
Carex: Revision of New Zealand Species, XVI., 414.
Eastern Golden Plover (*Charadrius fulvus*), Occurrence of, in Auckland, XIV., 264.
Fertilization of Certain New Zealand Plants, XVII., 455.
Flora; Additions to, XIV., 299; XV., 298; XVI., 409.
Glossostigma, Fertilization of, X., 353.
Juncus tenuis, Occurrence of, XI., 433.
Hymenophyllum, n.s., VIII., 330.
Kyllinga in New Zealand, XI., 434.
Lepidosiren and other Fishes, XII., 448.
Loranthus, n.s., XIII., 296.
Moa Remains, VIII., 427.
Mollusc from Auckland Harbour, X., 551–553.
Mollusca, Auckland, VIII., 304.
" Nudibranchiate, XIII., 222; XIV., 213.
" Opisthobranchiate, XI., 378; XIII., 224.
Naturalized Plants of Auckland, XV., 268.
Nelson, Flora of, XIV., 301.
Poranthera in New Zealand, XI., 432.
Pirongia Mountain, Botany of, XII., 317.
Planarians, New, from Auckland Harbour, XV., 213.
Plants, n.s., XVII., 235.
Polypodium, n.s., X., 356.
Pterostylis, Fertilization of the, V., 352.
" *squamata*, VII., 352.
Rhagodia in New Zealand, XVI., 408.
Selliera, Fertilization of, IX., 542.
Senecio, n.s., VII., 348.
Sporadanthus, Occurrence of, XII., 324.
Sword-fish, VIII., 219.
Thelymetra, Fertilization of, XIII., 291.
Titirangi, Botany of, IV., 270.
Chesnais, Rev. T. Le Menant des,
Ancient Science, XV., 527.
Chilton, C., M.A.,
Crustacea, Additions to New Zealand, XIV., 171; XV., 69.
" Sessile-eyed, XVI., 249.
" Subterranean, XIV., 174; XV., 87.
English Crayfish (*Astacus fluviatilis*) and a New Zealand one (*Paranephrops setosus*), XV., 150.
Isopodan Fauna of New Zealand, XV., 145, 188.
Marine Mites, XV., 190.
Church, A. H., M.A.
Phormium tenax, Chemistry of, VI., 260.
Clarke, F. E.,
Bird, New, IXII., 454.

Clarke, F. E.—*continued.*
New Fishes, X., 243; XI., 291, 295.
Tadpole found at Hokitika, X., 573.
Trachypterus, n.s., XIII., 195.

Closs, Dr.,
On the Senses and the Intellect, XVII., 467.

Cockburn-Hood, T., F.G.S.,
New Zealand a Post-glacial Centre of Creation, X., 3.
Supposed Pleistocene Glaciation and Post-glacial Moas, IX., 633.

Colenso, W., F.L.S.,
Address to the Memory of Dr. Darwin, XV., 541.
Allan and Richard Cunningham, XII., 459.
Ancient Dog of the New Zealanders, X., 135.
Animal Economy and Habits of a Species of *Naultinus*, XII., 251.
Arachnida and *Insecta*, Exhibition of, XIII., 456.
Arachnids, New, XV., 165.
Botany of New Zealand, XVI., 325; North Island, I., Essay; *n.e.* I., 233; XVII., 237.
Callorhynchus, n.s., XI., 298.
Cavern near Cook's Well at Tolaga Bay, and on a Tree (*Sapota costata*) found there, XII., 147.
Contributions towards a Better Knowledge of the Maori Race, XI., 77; XII., 108; XIII., 57; XIV., 33; XVI., 568.
Day in which Captain Cook took Formal Possession of New Zealand, X., 99.
Ferns, New, XI., 429; XIII., 376; XV., 304.
" of Scinde Island, XIII., 370.
Fine Perception of Colour possessed by the Ancient Maoris, XIV., 49, 477; XV., 542.
Fossils exhibited, XIV., 565, 567.
Fungi, List of Newly-discovered, XVII., 265.
Historical Incidents and Traditions of the Maoris of the North Island, XIII., 38; XIV., 3.
Ignorance of the Ancient New Zealanders of the Use of Projectile Weapons, XI., 106.
Indigenous Plants, Newly Discovered, XVII., 237.
" Vegetable Products of the Country, XVI., 569.
Insects of the Orders Orthoptera and Coleoptera, New, XIV., 277.
" Plants, &c., exhibited, XIV., 564.
Journey to the Ruahine Mountain-range, and Flora of that Region, XI., 567, 570.
Large Number of Species of Ferns in Small Area in Seventy-Mile Bush, XV., 311.
Macaulay's New Zealander, XV., 542.
Manibus Parkinsonibus Sacrum: a Brief Memoir of the First Artist who visited New Zealand, X., 108.
Maori Races, I., Essay; *n.e.* I., 339.
Men of Science who preceded us in these Seas and Lands, XVI., 569.
Metamorphosis and Development of *Danais berenice*, X., 276; XI., 305.
Metamorphosis of *Dasypodia selenophora*, XI., 300.

Colenso, W., F.L.S.—*continued.*
Metzgeria, n.s., and *Bæomyces heteromorphus* in New Zealand, XIII., 368.
Moa (*Dinornis*, sp.), XI., 568; XII., 63.
Myth of Rae, and the Pet Whale of Tinirau, XII., 459.
Naultinus, supposed to be new, XVII., 149.
New Zealand Insects, Newly-discovered, XVII., 151.
„ Shells, Little-known, XIV., 168.
Nomenclature, XV., 542.
Plants, New, XII., 359; XIV., 329; XV., 320.
Rare and Peculiar New Zealand Insects, XIII., 457.
Specimens in Natural History described, XI., 572.
Vegetable Food of the Ancient New Zealanders, XIII., 3.
Zoological Specimens and Maori Curiosities, XIV., 565.

Collie, W.
Volcanoes and Geysers of New Zealand, XII., 418.

Committee, Canterbury,
Native Grasses, IV., 292.

Comrie, Dr., H.M.S. "Dido,"
Stone Period, South Africa, V., 425.

Connel, T. A.,
Cause of Error in executing Minor Triangulation with Instruments of Small Diameter, XIV., 561.
Surveys, VIII., *a.*, 27.

Cook, C. H. H., M.A.,
Bridge over Grey River at Brunner Gorge, IX., 310.

Corbett, Capt. J. G.,
Phenomena, Hot Springs, II., 414.

Coughtrey, M., M.D.,
Actinia, VII., 280.
Earnsclough Cave, VII., 138.
Hydroidea, VII., 281; VIII., 298.
Irrigating an Object on a Microscope, Mode of, IX., 653.
Moa Remains, Otago, VII., 266.
Salmon Ova, Transportation of, IX., 653.

Cowie, Right Reverend W. G., D.D.,
Address, Auckland, XVI., 558.
Afghanistan and Central Asia, XIII., 438.
University of New Zealand, its History, Constitution, and Objects, XV., 531.

Cox, S. H., F.G.S.,
Aorere River, History of, since Miocene Times, XVI., 548.
D'Urville Island Copper-mine, XI., 525.
Minerals collected by Geological Survey Staff, XIII., 430.
Mineralogy of New Zealand, XIV., 418; XV., 361.
New Minerals, XV., 409; XVI., 448.
Pitch-stones and Quartz Porphyries of Mount Sumner District, XIII., 432.
Thames Goldfields and the Laws which govern the Distribution of Gold, XV., 525.
Mount Cook, Valley System on Western Flanks, IX., 577.

Crawford, J. C., F.G.S.,
Address, II., 396.
Alluvial Gold, Wellington, II., 160.
Anemophila arundinacea, V., 111.
Bidwill's Front Hills, XII., 416.
Boulders and Travelled Rocks, I., 79; *n.e.* I., 19.
Concealed Coal in New Zealand, Search for, XV., 523.
Coal Deposits, Wellington, VIII., 379.
Cook Strait a Great River, VII., 448.
Ensilage, XV., 524.
Flax, Irrigation of, II., 129.
Geology, North Island, Essay, *n.e.* I., 305.
„ and Topography, South America, V., *a.*, 425.
„ Wellington, II., 343.
Gold in Wellington District, X., 477.
Granolithic Cement, XV., 524.
Greenway Floating Breakwater, XVI., 551.
Harvesting Crops independent of Weather, XV., 524.
Hataitai Valley, Changes in, XVII., 342.
Hedges and Hedge-plants, IX., 203.
Hedge-plants for New Zealand, XV., 524.
How New Zealand may continue to grow Wheat and other Cereals, XI., 149.
Igneous Rocks, VIII., 375.
Islands of Tonga, Samoa, and Fiji, Excursion to, XVII., 447.
Lake Systems, VIII., 369.
Maori Language, I., 40; *n.e.*, I., 444.
Mineral Veins, Attempt at Explanation of, IX., 560.
Miramar Peninsula, V., 396.
„ Improvements on, XI., 530.
New Zealand Coffee, IX., 545.
Port Nicholson a Fresh-water Lake, VI., 290.
Prickly Comfrey, X., 523, 528.
Sand-fixing: Remarks on Mr. Travers' Paper, XV., 528.
Solar Heat, XIV., 541.
Storage of Energy by utilizing Water-power, XVI., 552.
Water-power, III., 315.
Water-worn Pebbles in the Soil, XVII., 341.
Wellington Harbour, Improvement of, X., 528.
Why few Fossils are found in Upper Palæozoic and possible Triassic Rocks of New Zealand, IX., 561.
Wind-formed Lakes, XII., 415.

Crisp, Captain,
Earthquake at Gisborne, X., 551.

Curl, G. M., M.D., &c.,
Beet for Manufacture of Sugar, XII., 431.
Fodder Plants, XII., 382.
Grasses, X., 345; XI., 403.
„ and other Herbage Plants for Cultivation in New Zealand, IX., 531.
Introduced Trees and Plants of Economic Value to New Zealand, XIII., 427.

Curl, G. M., M.D., &c.—*continued*.
Pituri, a new Vegetable Product, XI., 411.
Sugar-beet, Growth of, in New Zealand, XIII., 142.
Curtis, W. S.,
The Ascent of Mount Franklin, XVII., 469.
Cuthbertson, J. R.,
Co-operation, XIV., 569.
Water-supply for Invercargill, XIV., 121.
Czerwonka, H.,
Drainage of Christchurch, X., 556.

D.

Daniel, P. F.,
Chemistry of Explosives, XVII., 468.
Darnell, B. H.,
Stone Epoch, Cape of Good Hope, IV., 157; V., 138.
Davie, C.,
Earthquake Waves, II., 222.
Davis, E. H., F.C.S., F.G.S.,
Crystallization, III., 284 (*vide* also 220).
Iron Pyrites, III., 287.
Nomenclature of Rocks, III., 285.
Davis, Rev. J. Upton,
George Eliot's Poems, XII., 455.
Deck, Dr.,
Effects of Temperature on Infant Mortality, V., *a*., 35.
Dobson, A. D.,
Dyke near Heathcote, XIII., 391.
Glacier Period, VI., 294; VII., 440.
Glaciers, Nelson, IV., 336.
Waste River-beds, Reclamation of, XIV., 100.
Dobson, Edward, C.E.,
Applied Science, Canterbury, I., 181; *n.e.* I., 129.
Altitudes, Calculation of, II., 223.
Economic Limit to Use of Reservoirs, XVI., 561.
Presidential Address, Canterbury, XIII., 445.
Protection of Land from Shingle in Rivers, IV., 153.
Sanitary Requirements of Colonial Towns, XIII., 84.
Dodds, F. L.,
Aërolite at Urenui, XVI., 551.
Duigan, J.,
Eels, Access to the Sea, VIII., 221.
Electricity, III., 324.
Dyson, R. W.,
Street Improvements, III., *p*., 90; VI., 521.

E.

Eccles, A., F.R.C.S.,
Address, Otago, II., 428.
Discovery of New Zealand, III., *p*., 65.

Edgar, Rev. S.,
Distress in England, Causes and Remedies: Reply to Mr. Firth's Paper, XII., 448.
Evolution considered from its Religious Side, XIV., 551.
Pacification of the World by means of a Rational International Policy, XII., 447.
Spontaneity, or Self-action of the Will, as opposed to all Doctrines of Necessity, XIII., 440.

Edwin, Commander R. A., R.N.,
New Zealand Weather Forecast, XII., 40.
Ships' Compasses, V., 128.

Enys, J. D., F.G.S.,
Botrychium lunaria (Moonwort) in New Zealand, XVI., 363.
Earthquake Phenomena, XV., 533.
Huia, Preservation of its Skin, VIII., 204.
Nomenclature of Ferns, III., 213.

Ewington, F. G.,
Arctic Expedition of 1875–76, XI., 547.
Reason in the Lower Animals, X., 552.

F.

Fairburn, E.,
Maori and Indo-European Languages compared, III., 313.

Fairclough, Rev. P. W.,
Constitution of Comets, XV., 477.
Lunar Influences and Popular Fallacies, XVI., 571.

Faulkner, Victor,
Fundamental Error in Dynamics, the Theory of Gravitation, and the Nebular Hypothesis, XIV., 543.

Federli, G. B.,
Sericiculture, Advantage of New Zealand for, XVII., 457.

Fereday, R. W., M.E.L.S.,
Butterfly, n.s., XV., 193.
Catocala, n.s., IX., 457.
Chrysophanus, Observations on, IX., 460; X., 252.
Cidaria, n.s., XVI., 119.
Cossidæ, IX., 459.
Danais, n.s., VI., 183.
Diadema bolina in New Zealand, IX., 463.
Heteropterous Lepidoptera, n.s., XV., 195.
Insects injurious to Vegetation, V., 289.
Lepidoptera, IV., 214; VI., 171.
Leucanidæ and *Chlenias*, n.s., XII., 267.
Ophideres, n.s., XV., 192.
Perenodaimon pluto, Peculiar Neuration in the Wings of, XV., 197.
Psychidæ, n.s., X., 260.
Satyridæ, n.s., VIII., 302.
Satyrinæ, n.s., XII., 264.

Field and Drew,
Trout caught at Wanganui, XV., 528.

Field, H. C.,
Ancient Aboriginal *Caches* near Wanganui, IX., 220.
Extinction of the Moa, XIV., 540.
Geography, Wellington, IV., 128.
Loranthus fieldii, Buchanan, XVII., 288.
Finsch, Otto, Ph.D., Bremen,
Critique, Ornithological, I., 112; *n.e.*, I., 58.
Ornithology, V., 206; VII., 226; VIII., 200, 408.
Firth, J. C.,
Address, Auckland, VIII., 420.
Distress in England, XII., 447.
Forest-culture, VII., 181.
Lava-beds, Mount Eden, VII., 460.
Steam-boilers, Felting, VI., 32.
Technical Education, X., 554.
Fitchett, Rev. A. R.,
Domestic Æsthetics and the Higher Education of Women, XI., 558.
FitzGerald, J. E., C.M.G.,
Nature of Art, II., 251.
Fitzgerald, G. G.,
Mud-fish, V., 456.
Fox, Hon. W.,
Speech, I., 13; *n.e.* I., 1.
Glaciers, V., 433.
Frankland, F. W.,
Doctrine of Mind-stuff, XII., 205.
Non-Euclidean Geometry vindicated, XVI., 557.
Simplest Continuous Manifoldness of Two Dimensions, IX., 272.
Statistics for Dr. Newman's Paper, "Is New Zealand Healthy?" XV., 493.
Fraser, Hon. Captain,
Moa-caves, Earnsclough, V., 102.
Fraser, Rev. C., M.A., F.G.S.,
Seals, II., 33.
University Education, II., 192; VII., 164.

G.

Galbraith, Dr.,
On Development, XVII., 467.
George, J. R., C. E.,
Coal for Gas, IV., 146; for Steam, IV., 151.
Patent Slip, Wellington, I., 50; *n.e.* I., 453; VI., 14.
Suez Canal, III., *p.*, 37.
Watershed Districts, XIII., 119.
George, Seymour T.,
Stingaree *(Trygon thalassia)*, XIII., 426.
Gibbon, E. A.,
Floating Breakwaters, XVII., 449.
Gibson, F. D.,
Wave Phenomena, I., 195; *n.e.* I., 146.

Gillies, Mr. Justice,
Address, Auckland, VI., 394.
Auckland Water-supply, XVI., 558.
Early Records of Auckland, X., 552.
Footprints of Bird, Poverty Bay, IV., 127.
Gerygone flaviventris, Habit of, VII., 524.
Growth of the Cork Oak in Auckland, XV., 267.
" Trees on Scotia Soil near Mount Eden, Auckland, XII., 357.
New Zealand Mollusca, XIV., 169.
Presidential Address, Auckland, IX., 638.
Sorghum Experiments, XIV., 373; XV., 261; XVI., 512.
Gillies, R., F.L.S.,
Address, Auckland, II., 405.
Change in the Fauna of Otago, X., 306.
Hot Springs, II., 169.
Pedigree of Man, IX., 654.
Presidential Address, Otago, IX., 656.
Trap-door Spiders' Nests, X., 301.
" Spider, VIII., 222.
Gillon, G. (Dr.),
Colour Sense, XIII., 430.
Gold-Smith, E. C.,
Description of Mayor Island, Bay of Plenty, XVII., 417.
Goodall, J., C.E.,
Cut-Stump, 25ft. underground, VII., 144, 521.
Quartz-crushing at the Thames, VIII., 176; IX., 209.
Water-supply, Auckland, VI., 35.
Gorrie, W.,
New Zealand Plants cultivated in Scotland, XIII., 428.
Gosset, Rev. C. H.,
Charagia virescens, Life History of, XI., 347.
Govett, R. H.,
Bird-killing Tree, XVI., 364.
Gray, G.,
Artesian Water-supply of Christchurch, XVI., 561.
Gray, J. E., Ph. D., F.R.S.,
Balæna marginata, III., 123.
Cetaceans, VI., 93.
Macleayius australiensis, VI., 90.
Whales, Seals, and Dolphins, VI., 87,
Gray, W.,
Cultivation of Native Shrubs, III., 181.
Gresson, Mr. Justice,
Address, Canterbury, V., 459.
Grey, Sir G., K.C.B.,
Maori Rat, IX., 639.
Valedictory Address, I., 17; *n.e.*, I., 4.
Gully, J., jun.,
Protozoa, Observations on, XVII., 469.
Günther, A., F.R.S.,
New Zealand Fishes, IX., 469.

H.

Hackett, T.,
Agricultural Chemistry, XVII., 469.
Haake, Wilhelm,
Development of the Discomedusæ, XIV., 562.
Haast, Julius von, Ph.D., F.R.S.,
Address, Canterbury, II., 421; VI., 419; X., 37.
Ancient Manufactory of Stone Implements at the Mouth of the Otokai Creek, Brighton, Otago, XII., 150.
Balænoptera rostrata (*Balænoptera huttoni*, Gray), XIII., 169.
Cañon District of Colorado, Remarks on, XVII., 458.
Carved Stone Bird named "Korotangi" by the Maoris, XIV., 104.
Ceramic and Industrial Art Specimens, XII., 453.
Cheimarichthys, n.s., VI., 103.
Curlew (*Numenius cyanopus*) in New Zealand, IX., 427.
Dinornis Bones, I., 80; *n.e.* I., 21; Sumner, VII., 54, 86.
Dinornithidæ, VI., 426.
Early History of the Philosophical Institute of Canterbury, XV., 536.
Earthquakes, I., 196; *n.e.* I., 147.
Epiodon novæ-zealandiæ, IX., 430.
Euphysetes pottsii, VI., 97.
Geological Structure of Banks Peninsula, XI., 495.
" " Southern Alps of New Zealand, XVII., 332.
Geology, Chathams, I., 180; *n.e.* I., 127; Mount Cook, III., 53.
Harpagornis, VI., 62; XIII., 232.
Harpagornis moorei, IV., 192.
Hochstetter, Ferdinand Ritter von, *In Memoriam*, XVII., 458.
Ichthyology, V., 272.
Kiwi, New, XVI., 576.
Leptocephalus longirostris, VII., 238.
Maori Burial-ground, Sumner, VII., 86.
" Cooking-places at the Mouth of the Shag River, Observations on Captain Hutton's Paper, IX., 670.
Megaptera lalandii (*novæ-zealandiæ*), XV., 214.
Mesoplodon floweri, IX., 442.
Moas and Moa-hunters, IV., 66.
Origin and Early History of the Canterbury Museum, XIV., 503.
Oulodon, a New Genus of Ziphioid Whales, IX., 450.
Phalaropus fulicarius (the Red Phalarope) in New Zealand, XVI., 279.
Porbeagle Shark, VII., 237.
Regalecus pacificus, IX., 646; X., 246.
Rock-paintings from South Africa, XIV., 558.
Rock Shelter of Weka Pass, XV., 535.
Saurian Remains, II., 186.
Thermal Springs, Hanmer Plains, III., 293; XIV., 414.
Ziphid Whale, II., 190.
Ziphius (*Epiodon*) *novæ-zealandiæ*, Goose-beaked Whale, XII., 241.
Zoological Researches made on the Chicken Islands by Andreas Reischek, XIV., 274.

Hamilton, A.,
Birds of the Petane District, XVII., 464.
Birds, New Zealand, XVII., 465.
Cuttlefish (*Ommastrephes sloanii*), XVII., 465.
District of Okarita, Westland, XI., 386.
" Plants collected in, XI., 435.
Duplication of Tusks in Wild Pig, XI., 535.
Exhibition of Collection of Sponges, XV., 542.
Foraminifera of the Tertiary Beds at Petane, XIII., 393.
Melicerta ringens and *Plumatella repens*, XII., 301.
Scientific Societies, Effect of, XVII., 466.
Vegetating Caterpillar of New Zealand, XVII., 464.
Zoological Specimens, Notes on, XVI., 569.
Hamilton, J. W.,
Moa Traditions, VII., 121, 496.
Hamilton, W. S.,
Coal and Lignite Deposits in Southland, XVI., 571.
Education, II., 196.
Gyration of the Wind, III., *p.*, 36, 303.
Lignine Origin of Quartz-pebble Beds of Southland, XVII., 467.
Orepuke Black Sand, XIII., 462.
Physiology of Plant- and Tree-life, XVI., 571.
Plants, New Zealand, Notes on, XVII., 290.
Quartz Pebbles of the Southland Plains, XV., 414.
Hart, Hon. R., M.L.C.,
Earth Tremors and Earthquakes, XVI., 549.
Movements of the Magnetic Needle, XII., 425.
Haultain, Hon. Colonel,
Phormium tenax, V., 357.
Russia and the Turkomans, XIII., 439.
Hawthorne, S., M.A.,
Co-operation, III., *p.*, 66.
Hay, D.,
Lime as Manure, IX., 206.
Native Trees, Cultivation of, V., 452.
Trees suitable for Avenues, VII., 519.
Heale, T.,
Address, Auckland, IV., 383; V., 442; VII., 513.
Beginnings of Life, VI., 400.
Eclipse to take place on 18th September 1876, IX., 640.
Occultation of Stars, VI., 57.
Heaphy, Major Charles, V.C.,
Port Nicholson and the Natives in 1839, XII., 32.
Flax, II., 116.
Heath, Neil, F.G.S.,
Effect of Cold on Fishes, XVI., 275.
Ice around Mont Blanc, A Day on, XIII., 441.
Runes, XIII., 439.
Swiss Lake-dwellings, XIV., 551.
Hector, James, M.D.,
Additions to Colonial Museum, Kekenodon, &c., XIV., 531, 533.
Address, Wellington, V., 407; VI., 367; XIV., 531, 541.

Hector, James, M.D.,—*continued.*
Antarctic Petrel (*Priocella antarctica*), IX., 464.
Auriferous Cements in New Zealand, Distribution of, XIII., 429.
Australian, Tasmanian, and New Zealand Coalfields, Relative Ages of, X., 532.
Balænidæ, II., 26; V., 154; VII., 251, 507.
Barometrical Observations (see *Appendix to each vol.*).
Belemnites found in New Zealand, X., 484.
Bones lately discovered by Mr. H. T. Wharton in Caves at Highfield, Canterbury, XV., 526.
Botany, Essay on, I., 44; I., *part* 3, 1; *n.e.* I., 157.
Californian Salmon at Riverton, XIV., 545.
Callorhynchus, III., *p.*, 35.
Cetacea of New Zealand, Recent and Fossil, XIII., 434.
Cetaceous Fossil, XIV., 545.
Chalk Deposit recently discovered near Oxford, in Canterbury, XII., 439.
Cork grown at the Hutt, XV., 528.
Coryphænoides, n.s., III., 136.
Cnemiornis calcitrans, VI., 76.
Creosoted White-pine for Railway Sleepers, XVII., 447.
Crow (*Glaucopis wilsoni*), Albino of, X., 522.
Crustacea of New Zealand, IX., 472.
Delphinidæ, V., 154; XVII., 207.
Dog, Remains of, found by Captain Rowan near Whitecliffs, Taranaki, IX., 243.
Earthquake Disturbance in the Ocean, XVI., 553.
Earthquakes and Wave Phenomena, I., 93; *n.e.* I., 35.
„ Tables of (see *Appendix to each vol.*).
Ergot in Rye-grass, VII., 488.
Fossil Brachiopoda, XI., 537.
„ Flora of New Zealand, XI., 536.
Fur Seal, IV., 196.
Geology, North Island, III., *p.*, 16.
„ Canterbury Mountains, XVII., 337.
„ Kawhia Harbour and Mokau Country, XVII., 447.
„ Outlying Islands, II., 176.
Geological Map of New Zealand prepared for Melbourne Exhibition, Explanation of, XIII., 430.
Gold-bearing Quartz from Port Nicholson, XVI., 548.
Gold in Quartz, Peculiar Form of, XVII., 447.
Gold Quartz from Te Aroha and Terawhiti, Coal from Wairarapa, Galena and Zinc-blende from Tararua Mountains, and Description of Locality in which the Terawhiti Specimen was found, XIII., 484.
Gold-production, I., *a.*, *part* 1; *n.e.* I., 439.
Great Comet of 1882, XV., 526.
Hæmatite and Spathic Iron Ores, XII., 424.
Ichthyology, VII., 239.
„ of New Zealand, IX., 465; XVI., 322.
Identity of Minerals from Wade and Makara, XVII., 448.
Kogia breviceps, Calf of, XVI., 549.

Hector, James, M.D.—*continued.*
Longitude, Wellington, VII., 504.
Lower Miocene Formation in New Zealand, XVI., 552.
Mercurial Springs of the Bay of Islands, X., 535.
Mesoplodon hectori, VI., 86.
Meteor, IV., 354
Meteorological Tables (see *Appendix to each vol.*).
Mining, II., 361.
Moa Remains, IV., 110.
Moa Feathers, XII., 439.
Motella, New Zealand, n.s., VI., 107.
Neobalæna marginata and *Kogia breviceps*, XII., 438.
New Fish, XIII., 194.
New Pomaderris (*Pomaderris tainui*), XI., 428.
New System of Telegraphic Weather Reports, XIV., 545.
New Trilobite (*Homalonotus expansus*), IX., 602.
New Zealand Fishes, XIII., 436.
" Mean Time, I., 48; *n.e.* I., 451.
" Sponges, XIV., 545.
Ophisurus, II., 34.
Oscillations, Barograph, and Celestial Glows, their Connection with Tidal Disturbances, XVI., 555.
Penguin, Fossil, IV., 341; II., 403.
Regalecus gladius, and other Additions to the Colonial Museum, X., 533.
Rev. Mr. Green's Ascent of Mount Cook, XV., 528.
Reptilia, Fossil, VI., 333.
Salmonidæ, III., 133.
Salmon Trout in Nelson Harbour, XIV., 211.
Sphenodon guntheri, XIV., 561.
Sunset Glows, XVI., 557.
Sydney Exhibition, XII., 432.
Thermal Springs, III., 297.
Tidal Waves, XVI., 552.
Tin Ore in New Zealand, XIV., 534.
Tokatea Tunnel, Rocks from, VI., 402.
Travels in Europe and America, IX., 615.
Weather Statistics and Notes (see *Appendix to each vol.*).
Whales of New Zealand Seas, X., 331.
White Island, III., 278.
Ziphidæ, III., 128.

Higginson, H. P., M.I.C.E.,
Floods in Lake District and Flooded Rivers, Methods of Prevention and Control, X., 180.

Hocken, Dr.,
Early History of New Zealand, Lecture on, XIII., 452.
Hot Springs of New Zealand, X., 560.
Whale Fisheries, III., *p.*, 68.

Holmes, R. T.,
Art Perspective, XII., 432.

Holmes, R. L.,
Meteorological Observations at Delanasau, Fiji, 1877, X., a. 26.

Hood, T. C., F.G.S.,
Hot Winds, Canterbury and Napier, VII., 107.
Physical Geography, Changes in, VII., 112.
Hudson, G. V.,
New Dipterous Insect, XV., 218.
Hudson, J., Dr.,
Spontaneous Generation, Experiments on, XVII., 182.
Hughes, H. G.,
Tutu, its Properties, III., 237.
Hunt, R. R.,
Growth of Sugar-beet in New Zealand, Remarks on Dr. Curl's Paper, XIII., 441.
Snags in the Waikato River, Blowing up with Dynamite, X., 161.
Hunter, A., C.E.,
Elevation of the Waikato District, XVI., 459.
Hutchinson, F. B., L.R.C.P.,
Hawaii-nei and the Hawaiians, XV., 467.
Hawaiian Race, Decline of, XV., 526.
Volcanoes of the Sandwich Islands, XVI., 547.
Hutton, F. W., C.M.Z.S., F.G.S.,
Albatross, its Flight, II., 227; III., *p.*, 48; IV., 347.
Anas gracilis, XII., 271.
Anatomy of the Bitentaculate Slugs of New Zealand, XIV., 158.
Aplysia, n.s., VII., 279.
Arid Island, I., 163; *n.e.* I., 108.
Artesian Wells, III., 251.
Bats; IV., 184.
Baleen Plates, VII., 266.
Branchiate Gasteropoda, XV., 118.
Branchiate Mollusca, XIV., 162.
Carbonaceous Mineral, III., 250.
Chitonidæ, IV., 173.
Cirripedia of New Zealand in Otago Museum, XI., 328.
Cœlenterate Fauna of New Zealand, XII., 274.
Collection from the Auckland and Campbell Islands, XI., 337.
Conchology of New Zealand, X., 293.
Crustacea, n.s., VII., 279.
Delphinidæ of New Zealand, IX., 349.
Diamond Fields of South Africa, XVII., 457.
Diptera of New Zealand, XII., 454.
Dr. von Haast's Classification of the Moas, IX., 363.
Earnsclough Cave, VII., 138.
Earthquakes, XVII., 457.
Earthworms, IX., 350.
Echinodermata of New Zealand, Addition to the Catalogue, IX., 362; XI., 305.
Entomology of New Zealand, IX., 355; XII., 272.
Eudyptes schlegeli, XI., 560.
Fauna of New Zealand, XI., 556.
" Geographical Relation, V., 227.
Fauna and Flora of New Zealand, Origin of, XVII., 459.
Freshwater Lamellibranchs of New Zealand, XIV., 148.

Hutton, F. W., C.M.Z.S., F.G.S.—*continued.*
Fungus-penetrating Nostæ, X., 559.
Geology, Manukau, II., 161; III., 244; IV., 333; V., *a.*, 25; VI., 284. Thames, VI., 272.
Glacier Period, V., 384; VIII., 383.
Hot Springs, I., 162; *n.e.* I., 106.
Hydrobiinæ of New Zealand, XIV., 143.
Hymenoptera of New Zealand, XIII., 447.
Ichthyology, V., 259; VI., 104; VIII., 209; IX., 353.
Inductive Method applied to the Theory of Descent, IX., 654.
Infusorian parasitic on *Patella argentea*, XI., 330.
Insecta, VI., 158.
Land Mollusca of New Zealand, Revision of, XVI., 186.
Land Shells, XV., 134; XVI., 161.
Limnæidæ of New Zealand, XVII., 54.
Lizards, IV., 167.
Lower Gorge of the Waimakariri, XVI., 449.
Mantis, XVI., 113.
Maori Cooking-places, VIII., 103.
Maori Rat, IX., 348; X., 288.
Marine Mollusca, XVI., 212.
Marine Spider and Vegetable Caterpillar, XIV., 537.
Mercury, Native, III., 252.
Moa Egg-shell and Feathers, IV., 166, 172; Remains, VII., 266; Bones, VII., 274.
Molluscan Fauna of New Zealand, Additions to, XV., 131.
Mosses, VII., 342.
Mus rattus, IV., 183.
Myriapoda of New Zealand in the Otago Museum, X., 288.
New Crabs, XI., 557.
New Fish, XII., 455.
New Genus of *Rissoinæ*, XIV., 147.
New Slugs, XI., 331.
New Zealand Frog, XII., 250.
New Zealand Malacology, XIII., 200.
New Zealand Shells in the "Voyage au Pôle Sud," XI., 557.
Notes on Dr. Buller's Birds, VI., 126.
Orakei Beds, Age of, XVII., 307.
Ornithology, I., 160, 162; *n.e.* I., 104, 106; II., 78; n.s., II., 80; III., 111; *Megapodius*, IV., 165; V., 140, 222, 226; *Rallida*, n.s., VI., 108; *Ocydromus*, VI., 110.
Orthoptera of New Zealand, XIII., 448.
Pakihi Island, I., 167; *n.e.* I., 113.
Phalacrocorax carunculatus, XI., 332.
Phormium Leaf, II., 111.
Polyzoa in the Catalogue of Marine Mollusca, Additions to, IX., 358.
Pulmonate Mollusca, XIV., 150.
Relation between the Pareora and Ahuriri Formations, IX., 590.
Rhachiglossate Mollusca of New Zealand, Revision of, XVI., 216.
Schwendener's Theory of the Nature of Lichens, X., 559.
Sea Anemones of New Zealand, XI., 308.

Hutton, F. W., C.M.Z.S., F.G.S.—*continued.*
Silt Deposit at Lyttelton, XV., 411.
Sinking Funds, II., 236.
Siphonariidæ of New Zealand, XV., 141.
Specimens from the Weka Pass Rock Paintings, XV., 534.
Structure of *Struthiolaria papulosa*, XV., 117.
Tertiary Mollusca, IX., 593; XV., 410.
„ Shells, VII., 458; XVII., 313.
Tursio metis, VIII., 180.
Wakatipu Lake, Formation of, V., 394.
Waikato Alluvial Deposits, IV., 333.
Worms of New Zealand, XI., 314; XII., 277.

I.

Inglis, J.,
Diatom, n.s., XIII., 448; XIV., 357.
Diatomaceous Deposits of New Zealand, XV., 340.
Irvine, Dr.,
Luminous Combustion, III., *p.*, 105.

J.

Jackson, H.,
Longitude, III., *p.*, 82.
Jenkins, W. G.,
Scientific Form of Harbours, XI., 560.
Jervois, His Excellency Sir W. F. D., G.C.M.G., President N.Z.I.,
Address, XVI., *a.*, 19; XVII., *a.*, 19.
Johnson, G. Randall,
Address, Wellington, XVI., 547.
Maori Rat, XVI., 553.
Johnston, Captain,
Rats, III., *p.*, 47.
Jones, R.,
Electric Lighting, XIV., 562.

K.

Kebbell, J.,
Gas-lamp for equalizing Temperature, XI., 532.
Keene, W.,
Sand Hills, VI., 376.
Kemp, W. G., M.R.C.S.,
Medical Aspects of Education, XII., *a.*, 21.
Kidd, Rev. R., LL.D.,
Induction and Necessary Truth, VII., *a.*, 38.
Probability, VII., *a.*, 46.
What is Science? VII., *a.*, 58.
Kirk, H. B., M.A.,
Sepioteuthis bilineata, Anatomy of, XVI., 145.
Kirk, T., F.L.S.,
Amphibromus in New Zealand, XVI., 374.
Arid Island, I., 163; *n.e.* I., 108.

Kirk, T., F.L.S.—*continued.*
Asteliads, IV., 241.
Beeches, New Zealand, XVII., 298.
Black Maire, X., 522.
Botanical Notes, XVI., 367.
Botany, I., 140; *n.e.* I., 84; I., 144; *n.e.* I., 88; n.s., II., 89, 102; Grasses, II., 103; IV., 295, 299; Orobranch, II., 106.
Botany of Bluff Hill, X., 400.
" Great Omaha, V., 363.
" Otago, Contributions to, X., 406.
" Waiheke, Rangitoto, and other Islands in Hauraki Gulf, XI., 444.
Botany of Waikato, III., 142; IV., 228.
Botrychium lunaria, XVI., 366.
Calceolaria repens and other Plants in Wellington District, XI., 466.
Campbell Island, Plants from, XIII., 437; XIV., 387.
Carmichælia, n.s., XVI., 378.
Cheilanthes, VI., 247.
Cladophora, n.s., XII., 307.
Conchology, Great Omaha, V., 363.
Cordyline, VI., 244.
Cyathea dealbata, V., 347.
Chatham Island Plants, V., 320.
Dacrydium, Revision of, X., 383.
Dicksonia lanata and *antarctica*, V., 345.
Economic Properties of certain Native Grasses, IX., 494.
Export of Fungus from New Zealand, XI., 454.
Fagus, n.s., XVII., 297.
Flax as a Paper-making Material, III., *p.*, 48.
Flora, Auckland and Takapuna, IV., 228.
" British and New Zealand, compared, IV., 247.
Floras of New Zealand and Australia, Relationship between, XI., 539.
Flora, Tauranga, Maketu, Rotorua, V., 322.
Flowering Plants, n.s., XII., 393.
Hymenophyllum armstrongii, X., 532.
" n.s., X., 394; XI., 457.
" *villosum*, Col., X., 395.
Isoëtes, VII., 377.
" and *Epacris*, II., 107.
Juncus glaucus in New Zealand, X., 393.
" *lamprocarpus*, VII., 378.
Lagenophora emphysopus and other Plants in New Zealand, XII., 397.
Lepidia, Revision of, XIII., 437; XIV., 379.
Lindsaya viridis, Col., X., 396.
Lycopodium, n.s., XI., 456.
" *varium* and *Lycopodium billardieri*, XVI., 376.
Maitai (*Podocarpus spicata*), X., 417.
Mr. Hamilton's Collection of Okarita Plants, XI., 439.
Monoclea forsteri in New Zealand, X., 418.
Naturalized Plants of Kororarika, I., 157; *n.e.* I., 100.

Kirk, T., F.L.S.—*continued.*
Naturalized Plants of New Zealand, II., 131.
" Port Nicholson, X., 362.
Neglected Forest Products of New Zealand, XIII., 130.
" Timbers, Utilization of, XI., 458.
Nephrodium decompositum and *Nephrodium glabellum*, X., 398.
" *pentangularum*, X., 531.
New Plants, IX., 547; X., 419; XI., 463; XII., 393; XIII., 384; XVI., 371.
New Zealand Olives, XIII., 437; XIV., 375.
Panax lineare, IX., 492.
Paper Materials, VI., 55.
Parasitism in *Loranthaceæ*, VIII., 329.
Phyllocladus, X., 373.
Pilularia, n.s., IX., 547.
Pine, n.s., XVI., 370.
Pittosporum, IV., 260.
Plants, Distribution of, IV., 256.
" doubtfully indigenous to Kawau, IX., 525.
Polygonum aviculare, V., 315.
Presidential Address, Wellington, XI., 539.
Recent Additions to New Zealand Flora, X., *a.*, 28; XIII., 437; XIV., 382.
Remarks as President, Wellington, XI., 520.
Rhagodia at Port Nicholson, XVI., 369.
Rumex, n.s., IX., 493.
Sand Wastes, Plants suitable for, VI., 45.
Senecio, n.s., XV., 359.
Stewart Island, Ferns and Fern Allies of, XVII., 228.
" Flowering Plants of, XVII., 213.
" New Plants from, XVI., 371.
" Punui of (*Aralia lyallii*), XVII., 293.
Triodia in New Zealand, XIII., 437.
" and *Atropis* in New Zealand, XIV., 378.
Veronica, n.s., IX., 502.
Zostera nana, Variety of, in New Zealand, X., 392.
Kirk, T. W.,
Abnormal Colouring of Kokako, XIV., 544.
Æolis, n.s., XV., 217.
Aphroditæ, XI., 397.
Birds in the Colonial Museum, Additions, XIII., 235.
Carcinological Fauna of New Zealand, Additions, XI., 392.
Cephalopoda, n.s., XIV., 283; XVI., 549.
Crustaceans, XI., 401; XIII., 236.
Curious Specimens of New Zealand Birds, XII., 248.
Eastern Golden Plover (*Charadrius fulvus*), XVII., 59.
English Butterflies in New Zealand, XVI., 550.
Giant Cuttlefish on the New Zealand Coast, XII., 310; XIV., 283.
Maori Comb and Arrow-heads, XIII., 436.
Marine Mollusca found in the Neighbourhood of Wellington, XII., 303.
Marine Planarians, XIV., 267.

Kirk, T. W.—*continued.*
Marine Shells, n.s., XII., 306; XIV., 268, 282.
New Zealand Fishes, Additions, XII., 308.
Palinurus, n.s., XII., 313.
Paper Nautilus, n.s., XVII., 58.
Red-capped Dotterel (*Hiaticula ruficapilla*) in New Zealand, XII., 246.
Sertularians collected in Wellington, XIV., 544.
Tertiary Fossils, New, XIV., 409.
Variations of Colour in New Zealand Birds, XVII., 60.
Vitrina milligani in New Zealand, XII., 307.

Knight, C., F.L.S.,
Address, VII., 467.
Fabronia, n.s., VIII., 312.
Gymnostomum, n.s., VII., 354.
Lichenographia of New Zealand, XII., 367; XV., 346; XVI., 400.
Lichens, VII., 356; VIII., 313.
Liodon, Teeth of, VI., 358.
Thysanothecum, New, XIII., 385.

Knox, F. J., L.R.C.S.E.,
Albino Eel, IV., 378.
Bat, New Zealand, IV., 186.
Berardius arnuxii, III., *p.*, 15.
Cetacean, Tooth of a, III., 130.
Chatham Island Aborigine, Skeleton of a, V., 304.
Ctenolabrus knoxi, V., 308.
Kanae, Anatomy of, IV., 189.
Kelp-fish, *Coridodax pullus*, III., 130.
Lizard (Tuatara), II., 17.
„ Brown Tree, II., 20.
Naultinus pacificus, V., 307.
Sword-fish, II., 13.
Ziphidæ, III., 125.

L.

Lang, R. M.,
Thermal Springs at Lyttelton, XVI., 447.

Lecoy, A., M.A., LL.B.,
Forest Question in New Zealand, XII., 3.

Lee, R.,
Astronomy, III., *p.*, 109.

Leece, J.,
Aërolite, IX., 653.

Lemon, C., Ph.D., M.I.T.E.,
Duplex Telegraphy, VII., 396.

Lendenfeld, R. von,
Central Alps of New Zealand, XVI., 562.

Levin, W., M.H.R.,
Leuconora, XIV., 540.

Lindsay, W. L., M.D., F.R.S.E.,
Salmon Acclimatization, VI., 436.

Liversidge, A., F.C.S., F.R.S.,
Moa Egg-shell, XIII., 225.

Liversidge, A., F.C.S., F.R.S.—*continued.*
New Zealand Minerals, X., 490.
Rock Specimen from New Zealand, X., 505.
Slate in contact with Granite from Preservation Inlet, Analysis of, XVII., 340.
Locke, Samuel,
Taupo and East Coast Tribes, Historical Traditions of, XV., 433.
Lodder, W.,
Compound Engines, V., 144.
Ludlam, A.,
Trees and Plants, Acclimatization of, I., *Essay*; *n.e.* I., 285.

M.

Macfarlane, James,
Earthquake Wave at Bay of Islands, X., 551.
Mackay, T., C.E.,
Technical Education, III., *p.*, 107.
Glacial Period, VII., 447.
Macgregor, Professor,
Mental Physics, X., 559.
Mackechnie, E.A.,
Concerning Alcohol, XII., 448.
Curse of Charity, XVII., 453.
Edgar Allan Poe, a Study in Morbid Psychology, XIII., 438.
Heredity, XIII., 443.
Law of Tolerance, XVI., 558.
Scale Blight, XIV., 549.
Shadow of Justice, XIV., 550.
Shore of the Unknown, XIV., 555.
Spell of the Supernatural, XVI., 559.
Successful Litigant, XVII., 455.
Visionary Faculty of Mind, XV., 531.
Macklin, H. P.,
Deflection of Shingle-bearing Currents and Protection of River-banks by Douslin's Floating-log Dams, XI., 144.
Macpherson, Dr.,
Alcohol, XVII., 468.
Mactier, A.,
Moa Remains at Awhitu, X., 552.
McArthur, D.,
Importance of Forestry, XIV., 569; XV., 461.
McKay, A.,
Fossil Ammonite, XVI., 549.
Gold in the Mackenzie Country, X., 481.
Hot Winds, Canterbury, VII., 105.
Igneous Rocks of East Coast of Wellington, XVI., 547.
Ironstone at Kawakawa, XVII., 446.
Kea, or Mountain Parrot, XVII., 449.
Moa Bones near Motunau, XIV., 409.
Moa Hunters and Maoris, Identity of, VII., 98.
Old Lake Basins of Otago, XVI., 550.

McKay, A.—*continued.*
Reptilian Beds of New Zealand, IX., 581.
Rhynchonella, XIII., 396.
McKerrow, J.,
Physical Geography, Otago, III., *p.*, 70, 254.
McLachlan, R., F.L.S.,
Neuroptera, VI., *a.*, 90.
McNaughton, R., C.E.,
Life-boats, VIII., 168.
Mair, Captain Gilbert, F.L.S.,
Chatham Islands, III., 311.
Fishes in Upper Wanganui River, XII., 315.
Influence of Atmospheric Changes on the Hot Springs and Geysers in the Rotorua District, IX., 27.
Marine Plant, "Totaramoana," X., 554.
Sheep in Waikato District, Disease among, XII., 446.
Mair, Major W. G.,
Rurima Rocks, V., 151.
Dodder, V., 450.
Refraction, V., 457.
Maning, F. E.,
Maori Tradition of Maui, XIV., 555.
Moa, Extinction of the, VIII., 102.
Mantell, Hon. W. B. D., F.G.S.,
Moas, I., 18; *n.e.* I., 5; V., 94.
Address, III., *p.*, 17.
Botany, Tahiti, VI., *a.*, 66.
Marchant, J. W. A.,
Waterspout in Cook Strait, XV., 525.
Marten, C. Rous, F.R.G.S.,
Anemometry, IX., 293.
New Zealand and Great Britain, Comparative Atmospheric Pressure, IX., 212.
Solar Radiation, VI., 391.
Martin, Albin,
Architecture and the Fine Arts, XII., 448.
Art and Literature, XIII., 439.
Martin, H. B.,
Objections to the Introduction of Beasts of Prey to destroy the Rabbit, XVII., 179.
Protection of Native Birds, XVII., 469, 471.
Martin, J. F.,
Advances in Photography, XIV., 554.
Chromatics, XIII., 438.
Tidal Wave of 11th May, 1877, X., 520.
Martin, J., F.G.S.,
Geyser Eruptions and Terrace Formations, XVII., 454.
National Education, Claims of Science on, VII., 168.
Maskell, W. M., F.R.M.S.,
Aphidian Insect infesting Pine-trees, XVII., 13.
Coccidæ in New Zealand, XI., 187; XII., 291; XIV., 215; XVI., 120; XVII., 20.

Maskell, W. M., F.R.M.S.—*continued.*
Hymenopterous Insect parasitic on *Coccidæ*, XI., 228.
Meteorological Stations, XIII., 448.
New Zealand *Desmidieæ*, XIII., 297; XV., 237.
Penguin, Parasite of, XVII., 19.
Review of a Paper on the Moa by M. A. de Quatrefages, XVII., 448.
Scale Insects, Exhibition of, XIV., 559.
Mason, T.,
Frost-bitten Plants at the Hutt, VIII., 411; XVII., 447.
Maxwell, J. P., A.I.C.E.,
Causes which operate on Shingle-bearing Rivers in the Determination of their Courses, and in the Formation of Plains, XI., 524.
Meeson, John, B.A.,
Plague of Rats in Nelson and Marlborough, XVII., 199.
Sunglows, Recent, XVII., 357.
Mchaffey, W. G.,
On Burns, XIV., 569.
Meinertzhagen, F. H.,
Aplysia, n.s., XII., 270.
Meldrum, Dr.,
Weather, Health, and Forests in Mauritius, XV., 524.
Menzies, Hon. Dr., M.L.C.,
Kea, XI., 376.
Meyrick, E., B.A.,
New Zealand Geometrina, XVI., 49; XVII., 62.
New Zealand Micro-lepidoptera, XV., 3; XVI., 1; XVII., 68, 121, 141.
Miers, E. J.,
Astacoides and *Paranephrops*, IX., 475.
Mollet, T. A.,
Artesian Well at Avonside, XIII., 410.
Hormosira billardieri, Structure of, XIII., 318.
New Form of Burette, XIV., 392.
Preparation of Spontaneously Inflammable Phosphine, XIV., 391.
Monro, Sir D., M.D.,
Geographical Botany, Nelson and Marlborough, I., Part III., 7; *n.s.* I., 161.
Montgomery, A.,
John Stuart Mill on Mind and Matter, XIII., 451.
Science and Ordinary Knowledge, XVI., 566.
Moore, G. H.,
Lord Howe's Group, XVI., 559.
Moore, J. M., M.D.,
Buddhism and its Evolution Theories, XVII., 454.
Shakespeare and Euphuism, XV., 531.
Moresby, Captain, R.N.,
New Guinea, VI., *a.*, 81.
Morgan, F. G.,
Settlement of the People on the Lands, XVII., 467.
Moss, F. J.,
Study of Statistics, X., 550.

Morton, J.,
Red Spider, VI., 380.
Ornithology, V., 225.
Mueller, Baron Ferd. von, C.M.G., F.R.S., M.D.,
Algæ, Chatham Islands, VI., 208.
Plants, Chatham Islands, V., 309.
Murison, W. D.,
Moa Remains, IV., 120.
Murphy, M.,
Small Birds Question, XVI., 561.

N.

Nares, Captain, R.N.,
Longitude, Wellington, VII., 502.
Nevill, Right Rev. Bishop,
Direct Creation of Primordial Types, IX., 655.
Presidential Address, Otago, X., 562.
Newman, A. K., M.B.,
Causes leading to the Extinction of the Maori, XIV., 459.
Changes obtaining in the English Race when transplanted to New Zealand, IX., 37.
Industries most suitable to New Zealand, XIII., 431.
"Is New Zealand a healthy country?" with Statistics by F. W. Frankland, XV., 493.
Monstrosities in Animals, XVI., 548.
Presidential Address, Wellington, XII., 433.
Sphenodon guntheri (Tuatara), X., 222.
Nottidge, J.,
Phormium fibre, II., 108.

P.

Park, J.,
Ascent of Mount Franklin, XVII., 350.
Auriferous Cements of Mount Arthur District, XIII., 428.
Fossils, XVI., 576.
Mineral Resources of New Zealand, XVI., 575.
Octopus, n.s., XVI., 576; XVII., 198.
Parker, T. Jeffery, B.Sc. Lond.,
Additions to Otago Museum, XVII., 461.
Callorhynchus antarcticus, XVI., 564.
Dissecting Microscope, XIV., 561.
Fin Whale, Notes on the Skeleton and Baleen of a, XVII., 3.
Great Ribbon-fish (*Regalecus argenteus*), XVI., 284.
Head in *Palinurus*, XVI., 297.
Holothurian (*Chirodota dunedinensis*), XIII., 418.
Macrocystis, XIV., 562.
Modern Histological Methods, Lecture on, XIII., 452.
Mounted Skeletons, Exhibition of, XIV., 562.
Mustelus antarcticus, Gravid Uterus, XV., 219.
New Method of preserving Cartilaginous Skeletons, and other soft Animal Structures, XIV., 258.

Parker, T. Jeffery, B.Sc. Lond.—*continued.*
Notornis, Painting of, XIV., 562.
„ *mantelli*, Skeleton of, XIV., 245, 561.
Pea Hen, Skeleton of, XIII., 452.
Porbeagle Shark, XVI., 565.
Preparations preserved by the Glycerine Jelly Process, XV., 538.
Red Cod (*Lotella bacchus*), Air-bladders and Auditory Organs of, XV., 234.
Rock-hopper (*Pygoscelis tæniata*), XIII., 452.
Saccharomyces, Remarks on, XIV., 562.
Scymnus lichia, Anatomy and Embryology of, XV., 222.
Spinous Shark (*Echinorhinus spinosus*) in New Zealand, XVI., 280.
Stylonichia mytilus, XIV., 562.
Torpedo, n.s. (*T. fusca*), XVI., 281.
Venous System of the Skate (*Raja nasuta*), XIII., 413.

Parsons, W. F.,
Telescope, Reflecting, V., 125.

Pascoe, F. P., F.L.S.,
New Zealand Coleoptera, IX., 402.

Paterson, Rev. J.,
Habits of Ants, XIV., 569.

Peacock, T.,
Presidential Address, Auckland, XIV., 546.

Pennefather, T. W., LL.M.,
Fragment of Samaritan Pentateuch, XVI., 554.

Peppercorne, F. S., C.E.,
Influence of Torrents on Climate and Rainfall, XII., 24.

Petrie, D., M.A.,
Carex, n.s., XIII., 332; XV., 358.
Carmichælia, n.s., XVII., 272.
Celmisia sessiliflora, Variety of, XV., 359.
Coprosma, n.s., XI., 426; XVI., 565.
Ehrharta, XII., 356.
Hemiphues in New Zealand, XII., 355.
Liparophyllum gunnii in New Zealand, XII., 354.
New Plants, XIV., 362; XVII., 269.
Olearia hectori, XVI., 393.
Science of the Weather, XI., 556.
Scientific Duties of the Government, XVII., 462.
Uncinia, n.s., XVII., 271.

Pharazyn, R., F.R.G.S.,
Geology, West Coast, Wellington, II., 158.

Phillips, Coleman,
Arrow Propulsion as observed amongst the Maoris, X., 97.
Civilization of the Pacific, IX., 59.
Ignorance of the Ancient New Zealanders of the Use of Projectile Weapons, XII., 50.
Law of Gavelkind, XVI., 518.

Pond, J. A.,
Analysis of Strata, Well, Mount Eden, VII., 405.
Analysis of Fireclay, Auckland, VIII., 348.

Pond, J. A.—*continued.*
Citric Acid obtained from Limes grown in Auckland and Tahiti, XIV., 405.
Explosives, XIII., 439.
Firing of Torpedoes by Electricity, X., 164.
Nickel in the Auckland District, X., 454.
Platinum in Quartz Lodes at Thames, XV., 419.
Pottery Clays of the Auckland District, XVI., 443.
Salt Spring near Hokianga, XI., 512.
Pope, J. H.,
Apparatus for measuring the Angles of Position and Distances of Double Stars, XI., 141.
Southern Stars and other Celestial Objects, XII., 165.
Potts, T. H., F.L.S.,
Apteryx, IV., 204.
Birds, N.Z., II., 40; III., 59; V., 171; VI., 139.
Ferns, X., 358.
Larus bulleri, IV., 203.
Lomaria, IX., 491.
Mantis in New Zealand, XVI., 113.
Native Shrubs, Cultivation of, III., 181.
Rallus pictus, IV., 202.
Powell, L., M.D., F.L.S.,
Arachnidæ, V., 280.
Cicadæ, V., 286.
Crustacea, n.s., VII., 294.
Desis robsoni, XI., 263.
Fishes, II., 84.
Hæmatococcus sanguineus, VII., 404.
Latrodectus (Katipo), III., 56.
Regalecus pacificus, XI., 269.
Purchas, Rev. Dr.,
Presidential Address, Auckland, XII., 441; XIII., 438; III., *p.*, 39.
Spiral Markings on Trenails, XII., 447.
Submarine Cable, VIII., 166.
Purdie, A. C., M.A.,
Bittern, n.s., III., *p.*, 99.
Duck, IV., 213.
Grampus (*Phocæna orca*), VI., 435.
Sea Mussel (*Mytilus latus*), Anatomy of, XVII., 461.
Supposed Hybrid, V., 480.
Swan, Skeleton of a, III., *p.*, 100.
Purnell, C. W.,
Antarctic Explorations, XI., 31.
Influence of Climate on the Geographical Distribution of Marine Mollusca, IX., 665.
Technical Education for Artisans, System of, XVII., 398.
Wanganui Tertiaries, VII., 453.

R.

Ralph, W. H.,
Hot Spring, Westland, VI., 380.

Rawson, S. G.,
Reciprocity of the Seasons with those of the Northern Hemisphere, X., 523.
Reischek, A.,
New Zealand Ornithology, XVII., 187.
Richmond, C. W.,
Doctrine of Mind-stuff: Reply to Mr. Frankland's Paper, XII., 215.
Man's Place in Creation, II., 267.
Natural Theology, II., 281.
Ringwood, William,
Red Sunsets, XVII., 386.
Roberts, W. H. S.,
Moas, VII., 548.
Robertson, C. A.,
Education as a Science, XI., 547.
Robson, C. H.,
Eastern Golden Plover (*Charadrius fulvus*), Breeding Habits of, XVI., 308.
Frost-fish, VIII., 218.
Katipo (*Latrodectes katipo*), Breeding Habits of, XI., 391.
" a Venomous Spider of New Zealand, XV., 523.
Marine Spider found at Cape Campbell, X., 299.
Moa Remains, IX., 279.
" Cape Campbell, VIII., 95.
Rochfort, J., C.E.,
River Changes, Hokitika, III., 299.
Romilly, Mr. Deputy-Commissioner,
Account of some of the less known Islands of Western Polynesia, XIV., 538.
Roseby, Rev. Dr., LL.D.,
Socialism, An Appeal to First Principles, XII., 454.
Ross, A. H.,
Action of Compass on board Steamers, VI., 10.
Magnetic Dip, XI., 558.
" Needle, Declination of the, VI., 3.
Rutland, J.,
Habits of the New Zealand Grayling (*Prototroctes oxyrhynchus*), X., 250.

S.

Sale, Professor,
Religion of the Drama, X., 560.
Salmond, Rev. Professor,
Criticism of Herbert Spencer's "First Principles," XII., 454.
Scandrett, W. B.,
Resources of Southland, XVI., 571.
Schwartzbach, B., M.D.,
Effects of School Life on Sight, XV., 472.
Scott, J. H., M.D., F.R.S.E.,
Birds of Macquarie Island, XIV., 562.
Hand in different Animals, X., 561.
Macquarie Island, XV., 484.
Mechanism of Voice and Speech, XI., 560.

Sewell, Rev. W.,
White Island, VI., 386.
Sharp, D.,
Anthribidæ of New Zealand, IX., 375.
Colydiidæ, IX., 390.
Shortland, E.,
Maori Races, I., *Essay*; *n.e.* I., 339.
Simmons, F.,
Higher Education, III., *p.*, 110.
Skey, H.,
Atmospheric Oscillations; III., 306.
Biela's Comet, VII., 148.
Eye-piece for Direct Solar Vision, VIII., 172.
Furness, A Smokeless, VI., 25.
Lifting-power of Inclined Planes in Aërial Transit, X., 170.
New Fire-grate for economizing the Combination of Coals and Lignites, IX., 672.
Periodic Vertical Oscillations in the Sun's Atmosphere, and their connection with the Appearance and Disappearance of the Solar Spots, XIII., 91.
Principle of the Gyroscope in Aërial Transit, X., 176.
Telescope, A New, V., 119.
Tension Wheel in Aërial Transit, X., 173.
Zodiacal Light, V., *a.*, 43; VII., 150.
Skey, W.,
Absorption of Alkaloids by Silicates, V., 375.
" of Copper, IV., 332.
Alkalinity of Carbonate of Lime, II., 150; IV., 323.
" of Salts and Minerals, IV., 325.
Alkalies, Solubility of, in Ether, VIII., 338.
Allotropic Form of Zinc and Cobalt Salts, XIII., 387.
Analogy of Cyanogen to Oxygen, VII., 379.
Approximate Composition of Winslow's Soothing Syrup, IX., 637.
Arsenic and Antimony, Absorption of, VIII., 337.
Argentic Sulphide, Electric Deportment of, VIII., 345.
Auriferous Alloys by Wet Processes, V., 370.
Cause of the Deposition of Camphor towards Light, XII., 411.
Crystalline Phosphates and Arseniates, II., 146.
Coprosma Bark, II., 152.
Decomposition of Argentic Oxide by Mercury, XII., 414.
Desilvering Argentiferous Gold, I., 103; *n.e.* I., 47.
Dimorphism of Magnesia, XIII., 389.
Dr. Dudgeon's Experiments regarding the Temperature of the Breath, XIII., 437.
Electro-motive Power of Metallic Sulphides, III., 232.
" and Electrolytic Phenomena, IV., 313.
" Order of Metals, VIII., 334.
Examination of Manganese Ores for Cobalt, X., 448.
Existence of Hydro-carbons in Fats and Oils, XI., 527.
Flax Fibres, IV., 370.
Geyser Waters of New Zealand, IX., 637.

Skey, W.—*continued.*
Gold, Detection of, by Iodine and Bromine, II., 156.
„ Absorption of Sulphur by, III., 216.
„ Nuclear Action of, V., 372.
„ Nuggets in Drifts, Formation of, V., 377.
„ Oxidation of, VIII., 339.
Hot-blast Blow-pipe, II., 148.
Hydration of Clay-slate, and Evolution of Heat, VII., 384.
Iodine, Manufacture of, V., 376.
Karaka Nut, IV., 316.
Metallic Sulphides and Oxides, Conductive Power of, IV., 311.
Metals, Reduction of, by Metallic Sulphides, III., 225.
Mineral Oils, VI., 252.
„ Waters of New Zealand, X., 423.
Mode in which Oil acts as a Nucleus in Super-saturated Saline Solutions, with Notes on the Mode of Action of Solid Nuclei, XII., 407.
Modification of the Mercuro-iodide Test for the Detection of Alkaloid or Albuminous Matter, IX., 553.
Monohydrate of Chloride of Barium, III., 220.
Movements of Camphor upon the Surface of Water, XI., 473; XII., 403.
Nature and Cause of Tomlinson's Cohesion Figures, XI., 490.
Nature of the Precipitate formed by certain Mercuric Salts in presence of Essential Oils, XII., 412.
Negative Pole of Battery formed by Sulphides, III., 222.
New Theory of the Mode by which Photographic Effects are produced with Silver Salts, XIV., 403.
Osomose as the Cause of the Persistent Suspension of Clay in Water, XI., 485.
Oxygenized Graphite and Platinum, VIII., 347.
Periodide and Iodo-carbonate of Lead, XIII., 388.
Phenomena of Burning Camphor in Water, XVI., 550.
Platinum, Fusibility of, II., 155.
„ Absorptive Property of, III., 221.
Presence of one or more Hydro-carbons of the Benzol Series in Petroleums, XI., 469.
Production of one or more Alkaloids from Fixed Oils by the Aniline Process, XI., 471.
Production of Platino-iodides of the Alkaloids, XI., 523.
Property possessed by Essential Oils of whitening the Precipitate produced by mixing a Solution of Mercuro-iodide with one of Mercuric-chloride, XI., 470.
Results obtained upon some Argentiferous Salts which are affected by Light, XII., 401.
Search for the Poisonous Principle of *Brachyglottis repanda* and *B. rangiora*, XIV., 400.
Silica, Absorption by, II., 151.
Silver and Platinum, Oxidation of, VIII., 332.
Silver Ore of Richmond Hill, IX., 556.
Simplest Continuous Manifoldness of Two Dimensions and of Finite Extent: Notes upon Mr. Frankland's Paper, XIII., 100.

Skey, W.—*continued.*
Solubility of Calcic Carbonate in Solutions of Alkaline Chlorides, X., 449.
Solubility of certain Earthy Carbonates in Pure Water, X., 452.
Sulphuretted Hydrogen, IV., 321.
Seismograph, IV., 330.
Sulphocyanide of Potassium, IV., 330.
Sulphur, Evolution of, from Carbon, VII., 389.
Supposed Paraffin Deposit at Waiapu, XIV., 397.
Torbanite, VII., 387.
Tutu, Poisonous Principle of, II., 153.
Useful Modification of Modern Writing-ink, IX., 557.
Smith, H. G. Seth,
Address, XVII., 451.
Harmonograph, an Instrument for producing Harmonic Curves, XV., 530.
Imaginary Quantities, XV., 532.
Origin of Language, XV., 530.
Smith, J. A.,
New Zealand and Australian Barks useful for Tanning Purposes, XI., 570.
Two Indigenous Productions—Manganese and *Zostera marina*—which might be made fair Articles of Export, X., 568.
Smith, J. G. S.,
A Chapter on Folk-lore, XV., 545.
Smith, S. P.,
Branched Nikau Tree, X., 357.
Changes in the Level of the Coast-line in the Northern Part of the North Island, XIII., 398.
Geology of the Northern Portion of Hawke's Bay, IX., 565.
Traditional Change in the Coast-line at Manukau Heads, XI., 514.
Smith, W. W.,
Hieracidea novæ-zealandiæ, and *H. brunnea*, XVI., 318.
Spencer, W. I., M.R.C.S.,
Diatoms, Exhibition of and Remarks on, XIII., 455.
Fresh-water *Algæ*, XIV., 287; XV., 302.
Life, XIII., 109.
Volcanic Disturbances in the Straits of Sunda, XVII., 464.
Stack, Rev. James W.,
Colour-sense of the Maori, XII., 153.
Maori House, Christchurch, VIII., 172.
Moas and Moa-hunters, IV., 107.
Moa, Notes on the Word, VII., *a.*, 28.
Lizards, Disappearance of, VII., 295.
Remarks on Mr. Mackenzie Cameron's Theory respecting the Kahui Tipua, XI., 553; XII., 159.
Traditional History of the South Island Natives, X., 57.
Stewart, J., C.E.,
Evidences of Recent Changes in the Elevation of the Waikato District, X., 34.
Field Boiler, Use of Salt-water in, III., 318.
Flax-machines, Power required to work, III., *p.*, 48.

Stewart, J., C.E.—*continued.*
Grand Hotel and Sanatorium in the Rotorua District, XVII., 427.
Kauri, Mottled, VII., 376.
Lava Caves (Three Kings), II., 162.
Lighthouse Foundation, Ponui Passage, IV., 135.
Mortar, Hydraulic, I., 157; *n.e.* I., 101.
River Steamers, II., 220.
Sand Wastes, Reclamation of, VI., 42.
Salmon, Acclimatization of, VIII., 205.
Semicircular Protractor, III., 316.
Waikato, Elevation of the, VIII., 430.
Water Supply, Auckland, VI., 40.

Stewart, J.,
Fossils from Takapau, XV., 542.

Stewart, J. T.,
River Systems, Wellington, II., 198.
"Taranaki," Raising the s.s., II., 203.

Stirton, S., M.D.,
Stereocaulon buchanani, n.s., VII., 367.

Stock, Ven. Archdeacon, B.A.,
Bat, Description of a, VIII., 180.
Longitude of Wellington Observatory, IX., 217.

Stocker, Rev. H.,
On the Records of an Old English Borough, XVII., 467.

Stout, R.,
Plea for the Study of Politics, XI., 557.

Stowe, E.,
Imperator davisii, IV., 218.
Meteor, III., *p.* 24.
Wind-worn Stones, V., 105.

Stuart, William,
Formation of Lake Wakatipu, XIV., 407.

Sturm, F. W. C.,
Beneficial Raising of Trees suited for Timber and Firewood, XI., 568.

Suter, Right Rev. Bishop,
Address, Nelson, XVI., 573; XVII., 470.

Sutherland, D.,
Cat's Eye Bay, XVII., 435.
Discoveries in the Neighbourhood of Milford Sound, XVI., 454.

T.

Tancred, H. J.,
Address, Canterbury, VI., 407.

Tancred, J. S., C.E.,
Sewerage, Irrigation, and Drainage, II., 214.

Tatton, J.,
Mineral Resources, Nelson, V., 484.

Taylor, Rev. R., F.G.S.,
Lake Pas, V., 101.
Moa Remains, V., 97.
Nelson, A.D. 2000, XVII., 469.

Tebbutt, —,
Comet-seeking, XV., 524.

Tenison-Woods, Rev. J. E., F.L.S.,
New Species of Millepore, XI., 345.
Tertiary Corals and Bryozoa of New Zealand, XIII., 429.

Thorne, G., Jun.,
Moa Remains, Whangarei, VIII., 83.

Thomson, G. M., F.L.S.,
Additions to the Crustacean Fauna of New Zealand, XIV., 230.
Cleistogamic Flowers of *Viola*, XI., 415.
Crustaceans, n.s., XVI., 234.
" n.s., from Auckland Islands, XI., 249.
Daphnia, n.s., XVI., 240.
Donatia novæ-zealandiæ, XIII., 289.
Fertilization of New Zealand Flowering Plants, XIII., 241.
Isopodous Crustacean, n.s., XI., 250.
Means of Fertilization among some New Zealand Orchids, XI., 418.
New Zealand Copepoda, XV., 93.
" Crustacea, XI., 230; XIII., 204.
" Entomostraca, XI., 251.
" Institute, its Relation to the Affiliated Societies, and to Scientific Work in New Zealand generally, XVII., 460.
" Pycnogonida, XVI., 242.
Origin of New Zealand Flora, XIV., 485.
Otago Plants, IX., 538; VII., 370.

Thomson, J. C.,
Distribution of Seeds, XVI., 571.

Thomson, J. T., F.R.G.S.,
Address, Otago, VI., 440; VII., 550.
" Southland, XIII., 458.
Barat or Barata Fossil Words, XI., 157; XII., 223.
Barata Numerals, V., 131.
Buddhistic Philosophy, XIV., 569.
Cleansing of Towns, XI., 38.
Colonial Standard Survey, IX., 96.
Ethnography, IV., 23.
Glacial Action and Terrace Formation, VI., 309.
Improvements in the New River, XIII., 462.
Longitude, Wellington, VIII., 441.
Maori, The Whence of the, IV., 23; VI., *a*., 25.
Mind-stuff, XIII., 462.
Moriori Connection, XII., 237.
Physical Geography of North Island, XVI., 571.
Recent Advances in Science, XIV., 568.
Remarks on Mr. Frankland's Paper on Mind-stuff, XIV., 107.
River-currents, Economizing, IV., 141.
Self-registering Windmills, X., 545.
Use of the Training-walls in deepening Invercargill Harbour, XV., 545.
Wind in Southland, XVI., 571.

Thompson, P.,
Dunedin Fish Supply, X., 324; XI., 380.
Ferns, Rare, VII., 540.
Fish and their Seasons, IX., 484.
Naturalist's Work, IV., 138.
Rock-pool, Contents of a, IV., 219.
Sand-dunes, Otago, III., *p.*, 66, 263.
Sandymount District, Otago, VI., 434.

Tinne, J. S. F.,
Flax, III., *p.*, 90.

Tisdale, Rev. St. Clair,
History of the English Alphabet, XVII., 469.

Traill, C.,
Tertiary Series, Oamaru, II., 166.

Travers, H. H.,
Chatham Islands, I., 173; *n.e.* I., 119.
Ornithology, Chathams, V., 212.

Travers, W. T. L., F.L.S.,
Address, Wellington, IV., 356; X., 519, 539.
Birds, Habits of, IV., 206.
Botany, Comparisons in, between Canterbury, Nelson, and Marlborough, I., Pt. 3, 17; *n.e.* I., 174.
Cassinia leptophylla, VI., 248.
Cause of the Warmer Climate which existed in High Northern Latitudes during Former Geological Periods, X., 459, 470.
Civilization, Effects of, on New Country, II., 299; III., 326.
Chatham Islands, IV., 63.
Chatham Islands, Avifauna and Flora, V., 212.
Distribution of the Organic Productions of New Zealand, XVI., 461.
Distribution, within the New Zealand Zoological Sub-region, of the Birds of the Orders Accipitres, Passeres, Scansores, Columbæ, Gallinæ, Struthiones, and Grallæ, XV., 178.
Eels, III., 120.
Flesh Fly, III., 116.
Glaciers, Extinct, VI., 297.
Glaciation, Pleistocene, VII., 409.
Great Flood of February, 1868, XIV., 76.
Hybridization, I., 89; *n.e.* I., 31.
Lake Districts of the Province of Auckland, IX., 1.
Maori Traditions, IV., 51.
Moa, Extinction of the, VIII., 58.
Moriori Canoes, IV., 354.
Mr. J. T. Thomson's System of Survey, from a Legal Point of View, IX., 280.
Phormium tenax, I., 168; *n.e.* I., 114.
Photography, IV., 160.
Podiceps cristatus, III., 113.
Polygonum aviculare, V., 310.
Sand-dunes on the West Coast of the Provincial District of Wellington, XIV., 89.
Sand-worn Stones, II., 247.

Travers, W. T. L., F.L.S.—*continued.*
Te Rauparaha, Life and Times of, V., 19.
Tidal Wave of 11th May, 1877, X., 522.
Traditions, Manners, and Customs of the Morioris, IX., 15.
Tryon, Henry,
Rabbit Nuisance, XIV., 540.
Tucker, T. G., Professor,
Comparative Philology, its Relation to Polynesia, XVI., 559.
Tunny, J. M.,
Coal and Coalfields, Auckland, VIII., 387, 428.
Tunzelmann, J. von,
Study of French and German Languages, XIII., 449, 450.
Turnbull, T. W.,
Haast Wreck, VII., 146, 493.
Haast Wreck and Ocean Currents, VIII., 446.

U.

Ulrich, Professor, F.G.S.,
Mineral Occurrences in Dusky Sound, XVII., 462.
Urquhart, A. T.,
Epacris microphylla, XIV., 364.
Habits of Earthworms, XVI., 266.
Protective Resemblances of the Araneidea, XV., 174.
Spread of Eucalyptus in the Karaka District, XVI., 383.

V.

Vaile, S.,
New Zealand Railways, XVI., 560.
Van Beneden, P. J.,
New Fossil Bird (*Anas finschi*), from Earnscleugh Caves, IX., 599.
Vaux, W. S. W.,
Maori Race, Origin of the, VIII., 3.
Verril, Professor A. E.,
New Star-fishes from New Zealand, XII., 278.
Villaine, M.,
Submarine Boat, V., 481.
Vollams, S. E.,
Mud-fish, V., 456.

W.

Wakefield, F., F.L.S.,
Intercommunication, II., 331.
Wakefield, G. M.,
Coleoptera, V., 294; VI., 153, 155.
Wakelin, T., B.A.,
Cause of Gravitation, XIII., 122.
Fallacies in the Theory of Circular Motion, XIV., 134.
Gravitational Experiments, XVII., 407.
Surface Features of the Earth, and Local Variation in the Force of Gravity, XV., 463.

Walcott, Colonel,
Formation of a Sanitary Section of Nelson Philosophical Society, XVI., 576.

Walker, Captain Campbell, F.R.G.S.,
Climatic and Financial Aspect of Forest Conservancy as applied to New Zealand, IX., *a.*, 27.
State Forestry, its Aim and Object, IX., 187.

Wallis, Rev. J., D.D.,
Citizenship of Women, XVI., 560.
Savage and Barbaric Survivals in Marriage, IX., 249.

Walsh, Rev. P.,
Abnormal Growth of New Zealand Flax, XIV., 374.

Ward, D., District Judge,
Address, Otago, II., 425.

Watkins, K.,
Landscape Art in the Province of Auckland, XII., 448.

Webb, J. S.,
Annual Address, Otago, IV., 409; VIII., 434; IX., 647.
Astronomy, V., *a.*, 50.
Atmospheric Pressure, V., 106.
Moon and the Weather, On the, III., *p.*, 62.
Otago Museum, III., 203.
Plants, Invercargill, V., 360.
Seals, II., 28; IV., 199.
Sinking Funds, III., 325.
Unseen Universe, XII., 454.
Zodiacal Light, V., *a.*, 47.

Webber, —,
Moa Bones, XVI., 571.

Wells, W.,
Drift-beds of Wakapuaka and Port Hills, Boulder Bank, &c., XVI., 576; XVII., 344.
Dun Mountain and Wairoa Gorges compared with Districts, Queensland and Auckland, III., *p.*, 107, 287.
Sanitary Law and its Influence on the Health and Well-being of the Community, XVII., 471.

Whitcombe, C. D.,
Sand-wastes, Reclamation of, V., 108.

White, Rev. H. Vere, M.A.,
Does Morality depend on Free Will? XV., 523.

White, Taylor,
Black Rat, XI., 343.
Hybrid Ducks, XVII., 465.
Moa Caves, Wakatipu, VIII., 97.

Wilding, R.,
Central Force, III., *p.*, 101.

Williams, Ven. Archdeacon,
Footprints of Large Bird, IV., 124.

Williams, G. W.,
Forest-Planting and Conservation with reference to particular Localities in the Wellington District, XII., 428.
Williams, Dr.,
Flax, III., *p.*, 106.
Fox Shark, III., *p.*, 108.
Wilson, D. C.,
Disappearance of the Small Birds of New Zealand, X., 239.
Rising Generation, XI., 549.
Wohlers, Rev. J. F. H.,
Conversion and Civilization of the Maori in the South of New Zealand, XIV., 123.
Maori Traditions, VII., 3; VIII., 108.
Wright, F. W.,
Spider, Poisonous (Katipo), II., 81.
Mountain Tramways, III., 321.
Wright, F. E.,
Electricity, New Zealand Earth Bad Conductor of, II., 226.
Village Greens, VI., 415.

Y.

Young, J.,
Paper Currency, Reply to a Paper by John Carruthers, M.I.C.E., X., 536.

APPENDIX.

INDEX TO SCIENTIFIC PAPERS AND REPORTS CONTAINED IN THE APPENDICES TO THE JOURNALS OF THE LEGISLATIVE COUNCIL AND THE HOUSE OF REPRESENTATIVES, FROM 1877 TO 1885, INCLUSIVE.

[The capital letters before the numbers refer to the Appendix to the Journals of the House of Representatives; L.C. refers to the Appendix of the Legislative Council.]

A.

Acclimatization Societies, B.-25, 1882.
" " Conference of, L.C., 2, 1882.
Adulteration of Food, F.-4, 1870; H.-19, 1874.
" Wines and Spirits, H.-14, 1875.
Agricultural College. (*See* Education.)
Analysis of Metalliferous Rocks, L.C., 12, 1877.
Annexation, A.-10, A.-10A, A.-15, I.-5, 1883; A.-3A, A.-3B, A.-3C, A.-3D, A.-3E, A.-3F, A.-4, Sess. I., 1884; A.-3, A.-3A, A.-3B, A.-3C, A.-3D, A.-3E, Sess. II., 1884.
Auckland Islands, L.C., 13, 1881; A.-5, 1863.

B.

Beet-root Sugar, I.-4, 1877; H.-23, 1880; H.-2, H.-2A, 1876. (*See also* Industries Commission.)
Birds of New Zealand, G.-29, 1871.
Boat-lowering Apparatus, G.-40, 1871.
Boring-machines, H.-20, Sess. II., 1879.
Botanic Garden Reports, D.-26, 1870; G.-21, 1871; G.-39, 1872; H.-26, 1873; H.-32, 1874; H.-24, 1875; H.-30, 1876; H.-25, 1877; H.-19, 1878; H.-6, Sess. II., 1879; H.-21, 1880; H.-24, 1881; H.-29, 1882; H.-20, 1883; H.-11, Sess. II., 1884; H.-23, 1885.

C.

Canterbury College. (*See* Education.)
Carved House Matatua, G.-4, Sess. II., 1879.
Chatham Islands, A.-4, 1867.
Coal, H.-22, 1880; C.-5, D.-1, 1881; D.-1, 1882.
Analyses, D.-3, 1872, p. 40; E.-10, 1873, App., p. 4; E.-3, 1874, p. 66; D.-2A, 1883.
Brockley Coalfield, Report, H.-35, 1882.
Exploration and Inspection of Mines, E.-1, 1877; E.-1, 1878.
Imported, H.-32, 1873; H.-27, H.-27A, 1875; H.-28, 1878.

Coal—*continued.*
Koranui, D.-3, 1882.
New Zealand, as a Fuel, H.-38, 1877.
Wallsend, C.-3, Sess. II., 1884.
Westport, I.-6, 1882; B.-19, 1883.
Used on New Zealand Railways, E.-1, 1878.
Coal Fields,
Auckland, D.-3, 1872, p. 35; E.-10, 1873; E.-3, 1874, p. 61.
Buller, E.-10A, 1873; E.-3, 1875, pp. 9, 88; E.-9, 1875; A.-3, 1876; E.-1, 1876, pp. 6, 86.
Canterbury, D.-3, 1872, p. 34; E.-10, 1873, and App., p. 30.
Collingwood, D.-3, 1872, p. 27; E.-10, 1873, and App., p. 21; E.-3, 1874, p. 62; D.-10, 1885.
Ngakawau, E.-10, 1873, and App., p. 17; E.-2A, 1873, p. 5.
Otago, D.-3, 1872, p. 37; E.-10, 1873, and App., p. 33.
Southland, E.-10, 1873, and App., p. 34.
Thames, D.-1, 1869; L.C., p. 39, 1869.
Wanganui, E.-10, 1873; E.-3, 1874, p. 62.
Westland, D.-3, 1872, p. 35.
Coal Mines,
Development of, B.-2A, p. 13, B.-2C, p. 8, 1872; D.-3, 1872; E.-1, 1873, p. 8; E.-2A, 1873, p. 4; E.-3, 1874, pp. 11, 61.
Inspected, E.-1, 1877.
Royalty paid, C.-2, Sess. I., 1884.
Worked with Single Egress, L.C., 12, 1879.
Codlin Moth Committee, I.-9, 1885; L.C., 4, 1885.
Colonial Museum. (*See* New Zealand Institute.)
Colonial Industries. (*See* Industries.)
Colorado Beetle, H.-32, 1877.
Confederation and Annexation, A.-3A, A.-3B, A.-3C, A.-3D, A.-3E, A.-3F, A.-4, Sess. I., 1884; A.-4, A.-4*, A.-4A, A.-4A*, A.-4A**, A.-4B, A.-4C, A.-4C*, A.-4D, A.-4D*, 1885. (*See also* Annexation.).
Copper Ore, D'Urville Island, H.-21, 1878.

D.

Dairy Factories, H.-9, Sess. II., 1884.
Defences, A.-7, 1883; A.-6, 1885.
Diseases of Lemon and other Trees, H.-21, 1885.
Dredging System, American, E.-6, 1877.

E.

Education,
Age of Pupils, E.-9, 1882.
Agricultural College, E.-7A, 1882.
Auckland College, E.-8, Sess. I., 1884; E.-8, 1885.
Black Wattle and Golden Wattle, Notes on, E.-13, 1885.
Canterbury College, H.-1C, 1878; H.-5, Sess. I., 1879; H.-1D, 1880; E.-4, 1881; E.-7, 1882; E.-7, E.-12, 1883; E.-1, Sess. II., 1884; E.-7, 1885.
Commissioner's Report, H.-1, 1878.

Education—*continued.*
Deaf-and-dumb Institution, H.-17, Sess. I., 1879; H.-1E, 1880; E.-8, 1881; E.-4, 1882; E.-4, 1883; E.-4, Sess. I., 1884; E.-4, 1885.
Examinations, E.-1A, 1881; E.-1A, 1882; E.-1A, 1883; E.-1A, Sess. I., 1884; E.-1A, 1885.
Extract from the Eighth Report of the Board of Education in Victoria, being a Memorandum on the State of Education in the Principal Countries of Europe and America in reference to the Questions of Compulsory Education, Payment of Fees, and the Religious Difficulty, G.-16, 1871.
Endowments for Education of Children, L.C., 6, Sess. II., 1884.
" Secondary and University Education, E.-11, 1885.
Females trained in Normal Schools, L.C., 11, 1881.
High School Endowment, L.C., 19, 1878.
Industrial Schools, H.-37, 1878; H.-1H, H.-1K, 1880; E.-6, E.-6A, 1881; E.-3, 1882; E.-3, 1883; E.-3, Sess. I., 1884; E.-3, 1885.
Inspectors, H.-1I, 1880; E.-1B, 1881; E.-1B, 1882; E.-1B, 1883 E.-1B, Sess. I., 1884; E.-1B, 1885.
Minister, H.-1, 1878; H.-2, Sess. I., 1879; H.-1A, 1880; E.-1, 1881; E.-1, 1882; E.-1, 1883; E.-1, Sess. I., 1884.
Native Schools, G.-4, G.-4A, 1877; G.-7, G.-7A, 1878; G.-2, H.-1A, Sess. II., 1879; H.-1F, H.-1L, 1880; E.-7, 1881; E.-2, E.-2A, 1882; E.-2, 1883; E.-2, Sess. I., 1884; E.-2, 1885.
Naval Training School, H.-1G, 1880.
Otago University, H.-1B, 1878; H.-4, Sess. I., 1879; H.-1C, 1880; E.-3, 1881; E.-6, 1882; E.-6, 1883; E.-6, Sess. I., 1884; E.-6, 1885.
Petition, I.-11, 1883.
Primary Education, E.-2, Sess. II., 1884.
Public Libraries, Subsidies to, E.-10, 1885.
Reformatory, L.C., 1, Sess. II., 1884.
Reserves, L.C., 15, 16, 1878; C.-1, Sess. I., 1879; C.-3, Sess. II., 1879; E.-10, E.-11, 1883; C.-3, Sess. I., 1884; C.-4, Sess. II., 1884; E.-11A, 1885.
Revision of Regulations proposed, E.-1C, 1885.
Royal Commission, H.-1, Sess. I., 1879; H.-1, 1880.
School Buildings in each Education District, E.-12, 1885.
School of Mines, H.-1E, 1878.
Secondary Schools, E.-5, 1881; E.-8, 1882; E.-8, 1883; E.-9, Sess. I., 1884; E.-9, 1885.
Technical Education, H.-22, 1880; E.-1D, 1885.
University of New Zealand, F.-1, 1867; H.-2, 1871; G.-8, G.-8A, 1871; G.-13, G.-45, 1872; A.-7, H.-3, H.-3A, 1873; H.-3, H.-3A, 1874; H.-4, H.-4A, 1875; H.-8, H.-8A, 1876; L.C., p. 91, 1868; L.C., p. 209, 1871; L.C., pp. 5, 22, 25, 26, 1872; H.-6, H.-7, 1877; H.-1A, 1878; H.-3, Sess. I., 1879; H.-1B, 1880; E.-2, 1881; E.-5, 1882; E.-5, 1883; E.-5, Sess. I., 1884; E.-5, 1885.
University of New Zealand, Petition of Chancellor, L.C., 4, 1879.
Wellington College, H.-1D, 1878; E.-8A, 1883.
Westland Education Board, E.-3, Sess. II., 1884.
Electricity: Lighting Parliament Houses, H.-27, 1883.

Exhibitions,
Ashburton, H.-6, 1881.
Christchurch, H.-22, 1880; H.-15, Sess. II., 1884.
Dunedin, H.-6B, 1881.
Melbourne, H.-5A, 1882.
New Zealand Industrial, H.-15, Sess. II., 1884.
Paris, H.-5, H.-5A, 1878.
Philadelphia, H.-23, 1877.
Sydney, H.-13, Sess. I., 1879; H.-5, H.-5A, 1880.
Wellington, H.-6A, 1881.
Wool (London), H.-32, 1881; H.-5, 1882.

F.

Ferrets, Polecats, Mongooses, &c., Imported; L.C., 23, 1877.
Fiji Islands, D.-22, 1870; Petition for Annexation, L.C., 11, 1885.
Fish-breeding, H.-30, 1880; H.-15, 1885; L.C., 16, 1885. (*See also* Salmon.)
Fisheries, D.-15, 1869; D.-9, 1870; H.-31, 1875.
Flax. (*See* Phormium.)
Flour, H.-12, Sess. I., 1879; H.-20, Sess. II., 1879.
Forests, D.-22, 1869; H.-5, H.-5A, H.-5B, 1874; H.-18, 1875; H.-41, 1876; Report of Conservator, C.-3, 1877; Papers and Notes, H.-3, 1880; C.-5, H.-11, 1881; C.-1, 1882; C.-1, 1883; C.-1, Sess. I., 1884.
Forest Lands, L.C., 6, 1882.
" Plantations, C.-5, 1881; C.-1, 1882; C.-1, 1883; C.-1, Sess. I., 1884.
" Reserves, L.C., 1, 1883; L.C., 1, Sess. I., 1884.
" Trees, Persons who have planted, L.C., 24, 1877.
Fruit Blights and Diseases of Fruit-trees in New Zealand, H.-26, 1885.
Fuel, I.-7, 1876.
Fungus, H.-39, 1873.

G.

Geological Reports (*see also* Coal),
Lower Waikato, D.-5, 1867.
Map, G.-46, 1872.
Gold Export since Discovery, H.-20, Sess. II., 1884.
Gold Fields, D.-8, 1863; C.-4, C.-4A, 1865.
Auckland, A.-17, 1869; D.-40, 1870; G.-31, 1871; G.-4, 1872, and App.; G.-4A, 1872; H.-7, 1873, p. 6; H.-9, 1874, and App.; H.-3, 1875, and App.; H.-3, 1876; H.-1, 1877; H.-4, 1878; H.-11, Sess. II., 1879; H.-26, 1880; H.-17, 1881; H.-19, 1882; H.-5, 1883; H.-9, Sess. I., 1884.
Commission, G.-18, 1871.
Committee, H.-11, 1871; H.-10, 1872; I.-1, 1877; I.-1, I.-1A, 1878; I.-6, Sess. I., 1879; I.-3, I.-3A, Sess. II., 1879; I.-3, 1880; I.-3, I.-3A, 1881; I.-3, I.-3A, 1882; I.-3, 1883; I.-3, I.-3A, I.-3B, Sess. II., 1884; I.-3, 1885.
Conference (Otago), C.-6, 1863; A.-8, 1874.
Essay, D.-6, 1869.
Laws, A.-8, 1871.
Leases, C.-2, F.-8, 1863.

Gold Fields—*continued.*
Lectures on, C.-2A, C.-2B, C.-2C, C.-2D, 1885.
Legislation, A.-8A, 1874.
Machinery, H.-6, 1874.
Marlborough, G.-31, 1871, p. 76; G.-4, 1872, and App., p. 5; H.-7, 1873, p. 7; H.-9, 1874, p. 7; H.-3, 1875, p. 8; H.-3, 1876; H.-1, 1877; H.-4, 1878; H.-11, Sess. II., 1879; H.-26, 1880; H.-17, 1881; H.-19, 1882; H.-5, 1883; H.-9, Sess. I., 1884.
Mining, California, D.-19, 1870.
Nelson, A.-5, 1872; G.-4, 1872, and App., p. 6; G.-46, 1872; H.-7, 1873, p. 12; H.-9, 1874, p. 7; H.-3, 1875, p. 8; H.-3, 1876; H.-1, 1877; H.-4, 1878; H.-11, Sess. II., 1879; H.-26, 1880; H.-17, 1881; H.-19, 1882; H.-5, 1883; H.-9, Sess. I., 1884.
Otago, D.-6, 1863; C.-4A, 1865; D.-14, 1866; C.-1, 1867; G.-4, 1872, and App., p. 27; H.-7, 1873, p. 28; H.-9, 1874, p. 23; H.-3, 1875, pp. 17, 27; H.-3, 1876; H.-1, 1877; H.-4, 1878; H.-11, Sess. II., 1879; H.-26, 1880; H.-17, 1881; H.-19, 1882.
Regulations, C.-4, 1864; H.-15, 1875, Ohinemuri; H.-1A, 1877.
Reports, G.-4, 1872; H.-7, 1873; H.-9, 1874; H.-3, 1875; H.-3, 1876; H.-1, 1877; H.-4, 1878; H.-11, Sess. II., 1879; H.-26, 1880; H.-17, 1881; H.-19, 1882; H.-5, 1883; H.-9, Sess. I., 1884; C.-2, 1885.
Returns, Revenue, &c., D.-11, 1866; G.-4, 1872, p. 39; H.-7, 1873, p. 37; H.-9, 1874, p. 32; H.-3, 1875, p. 57; H.-3, 1876; L.C., 2, 2A, 1878.
Roads, D.-7B, Sess. II., 1884.
South of Mataura River, C.-3, 1885.
Waikato, D.-14, 1866.
Water-supply, D.-1, 1881; D.-1, 1882.
Westland, D.-40, 1870; G.-31, 1871, p. 13; G.-4, 1872, and App., p. 15; H.-3, 1873, and App., p. 21; H.-3, 1876; H.-1, 1877; H.-4, 1878; H.-11, Sess. II., 1879; H.-26, 1880; H.-17, 1881; H.-19, 1882; H.-5, 1883; H.-9, Sess. I., 1884.
Westport, H.-9, 1874, p. 8; H.-3, 1875, p. 9.
West Wanganui, H.-4, 1878; H.-11, Sess. II., 1879; H.-26, 1880.
Works in Progress, H.-5, 1883; H.-9, Sess. I., 1884.
Grain, Imported and Exported, H.-25, Sess. II., 1879.
Grants for prospecting, B.-10, Sess. II., 1884.
Gumfields, C.-4, Sess. I., 1884.
Gunpowder Factory, H.-37, Sess, II., 1879; H.-22, 1880.

H.

Harbours of New Zealand (Sir J. Coode's Report), L.C., 12, 1880. (*See also* Defences.)
Hauhauism, E.-4, 1865.
Hot Springs, H.-26, 1874; C.-5, 1881; C.-1, Sess. I., 1884. (*See also* T.)

I.

Indian Markets for New Zealand Frozen Meat, &c., H.-43, 1885.
Industries,
Colonial, F.-1, 1870; G.-14, G.-14A, H.-7, 1871; G.-16, H.-8, 1872; H.-34, I.-4, 1873; I.-1, 1874; H.-15, H.-15A, H.-15B, 1885.

Industries—*continued.*
Bonuses, Return of, L.C., 6, 1881; H.-15B, 1885.
Commission, Royal, H.-22, 1880; B.-22, 1882.
Committee, I.-10, 1881.
Ironsand, D.-8, F.-10, 1866; C.-1, 1883.
Linseed Oil and Oilcake, C.-1, 1885.
Olives and Mulberries, H.-22, 1880; C.-5, I.-10, 1881; C.-1, 1882; C.-1, 1883.
Subtropical, C.-1, Sess I., 1884; C.-1, 1885.
Sugar, I.-4, 1877; H.-23, 1880.
Victoria, D.-23, 1869.

L.

Longitude, D.-27, 1870; G.-23, 1871; H.-6, H.-6A, 1876.

M.

Maize, Duty on, I.-8, 1880.
Maoris, Legendary History of, G.-8, 1880.
Maori Customs and Superstitions, E.-7, 1861.
" Lexicon, G.-6, 1880; G.-2, 1882.
" Population, G.-7, 1874.
Maruia and Buller Rivers, Geology of District between, D.-2, 1883.
Metalliferous Rocks, Analyses, L.C., 12, 1877.
Meteorological Conferences,
Melbourne, H.-31, 1881.
Sydney, H.-30, 1881.
Mines,
Control and Inspection, E.-1, 1877; E.-1, 1878; H.-16, Sess. I., 1879; H.-18, 1880; H.-14, 1881; H.-13, 1882; H.-11, 1883; C.-5, Sess. I., 1884; C.-4, 1885.
School of. (*See* Education.)
Mineral Leases, Nelson, C.-10, Sess. II., 1879.
" Waters, Analyses, H.-13, Sess II., 1879.
Miners, Chinese, L.C., 13, 1882.
" Coal, Introduction of, D.-4, 1880.
Mining Commission, G.-18, 1871.
" Conference, C.-6, 1873; A.-8, 1874. (*See also* Gold *and* Coal.)
" Industry, Encouragement of, H.-20, 1882.
" Machinery, &c., in Victoria and New South Wales, H.-9, 1885.
Mulberry Trees, C.-5, 1881; C.-1, 1882; C.-1, 1883. (*See also* Industries.)
Museum, Colonial. (*See* New Zealand Institute.)

N.

Native Fuel, I.-7, 1876.
Naval School. (*See* Education.)
Navigator Islands, Native Labour, &c., A.-6, Sess. I., 1879.
New Hebrides, A.-5, Sess. 1, 1879; L.C., 14, 1880.
New Zealand Institute, D.-9, 1869; D.-25, 1870; G.-17, 1871; G.-38, 1872; H.-25, 1873; H.-31, 1874; H.-23, 1875; H.-34, 1876; H.-26, 1877; H.-18, 1878; H.-7, Sess. II., 1879; H.-20, 1880; H.-25, 1881; H.-28, 1882; H.-21, 1883; H.-12, Sess. II., 1884; H.-24, 1885.
New Zealand Museum, D.-9, 1866; D.-14, 1868.
" " London, H.-7A, H.-7B, 1874.

O.

Observatory, D.-39, 1870.
Olive-culture, H.-20, 1877; C.-1, 1883. (*See also* Industries.)
Otago University. (*See* Education.)
Oyster-culture, H.-13, 1877.
Oyster Fisheries, H.-31, 1875.

P.

Pacific Annexation, A.-10, A.-10A, I.-5, 1883; A.-3A, A.-3B, A.-3C, A.-3D, A.-3E, A.-3F, A.-4, Sess. I., 1884; A.-3A, A.-3B, A.-3C, A.-3D, A.-3E, Sess. II., 1884.
Pacific Islands Committee, I.-8, 1885.
Pacific Islands Trade, D.-22A, 1870.
Pai-Marire Religion, E.-8, 1864.
Petroleum, Taranaki, A.-16, 1866.
Philadelphia Exhibition, H.-5, H.-5A, 1875.
Phormium, D.-14, D.-14A, 1870; G.-4, G.-4A, 1871; G.-17, G.-44, 1872; H.-5, Sess. II., 1879. (*See also* Industries Commission.)
Photo-lithography, H.-22, 1876.
Photo-zincography, G.-27, 1871.
Pleuro-pneumonia in Cattle, H.-32, 1880.
Poisons, Prevention of, F.-13, 1866.

S.

Salmon Acclimatization, D.-2, 1869; G.-26, G.-26A, 1872; H.-12, 1873; H.-8, H.-8A, 1874.
Salmon and Whitefish, &c., H.-14, 1877; H.-11, H.-11A, 1878; H.-14, H.-14A, Sess. II., 1879; H.-31, 1880; H.-17, 1885. (*See also* F.)
Samoan Islands and United States, Treaty, A.-7, Sess. I., 1879.
Sand-drifts, L.C., 16, 1870.
Scab, Introduction into Nelson, H.-8, Sess. II., 1884.
Seacliff Asylum Site, L.C., 16, 1880.
Silk, D.-3, 1870; H.-22, 1880; C.-5, 1881; C.-1, 1882; C.-1, 1883; C.-1, Sess. I., 1884.
Silver Ores, Analyses, L.C., 7, 1876.
Snares Rocks, L.C., 13, 1881.
South Sea Islands Trade, A.-3, 1874; I.-7, Sess. II., 1884.
State Forests, D.-22, 1869; H.-5, H.-5A, H.-5B, 1874; H.-18, 1875; H.-41, 1876. (*See also* Forests.)
Sub-tropical Industries, C.-1, Sess. I., 1884; C.-1, 1885.
Sugar from Beet-root, H.-2, H.-2A, 1876.
Sugar *(Sorghum)*, G.-36, 1871.

T.

Thermal Springs Act, Lands affected, G.-9, 1883.
Thermal Springs, Hanmer Plains, C.-1, Sess. I., 1884.
Timber,
Durability of, H.-25, 1874.
Charring, L.C., 9, 1876.
For Sleepers, D.-8, Sess. I., 1884.
Imported and Exported, H.-12, Sess. I., 1879; H.-25, Sess. II., 1879; L.C., 1, 1879.

Timber—*continued.*
New Zealand, Consumption, H.-19, Sess. II., 1879.
Process for preserving, H.-26, 1881.
Trade with France, H.-16, 1881.
Tobacco Cultivation and Coolie Labour, H.-9, 1878. (*See also* Industries Commission, &c.)

U.

University. (*See* Education.)
University of Otago. (*See* Education.)

V.

Venus, Transit of, H.-16, 1874.
Vienna Exhibition, H.-5, 1873; H.-7, 1874.
Vine-culture, H.-25, 1880. (*See also* Industries Commission.)

W.

Wattle-culture, H.-14, Sess. II., 1884. (*See also* Industries Commission.)
Weights and Measures, F.-5, 1870.
Wellington College. (*See* Education.)
Whitefish. (*See* Salmon.)
Wool, D.-1, D.-1A, 1870; G.-28, 1872; L.C., 4, 1878.

By Authority: GEORGE DIDSBURY, Government Printer, Wellington.—1886.